STATE OF MINNESOTA DISTRICT COURT
COUNTY OF RAMSEY SECOND JUDICIAL DISTRICT
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The State of Minnesota,
by Hubert H. Humphrey, III,
its attorney general,
and
Blue Cross and Blue Shield
of Minnesota,
Plaintiffs,
vs. File No. C1-94-8565
Philip Morris Incorporated, R.J.
Reynolds Tobacco Company, Brown
& Williamson Tobacco Corporation,
B.A.T. Industries P.L.C., Lorillard
Tobacco Company, The American
Tobacco Company, Liggett Group, Inc.,
The Council for Tobacco Research-U.S.A.,
Inc., and The Tobacco Institute, Inc.,
Defendants.
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TRANSCRIPT OF PROCEEDINGS
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P R O C E E D I N G S.

THE CLERK: All rise. Ramsey County District Court is now in session, the Honorable Kenneth J. Fitzpatrick now presiding.

(Jury enters the courtroom.)

THE CLERK: Please be seated.

THE COURT: Good morning.

(Collective "Good morning.")

THE COURT: Counsel.

MR. BERNICK: Thank you. Good morning.

(Collective "Good morning.")

DR. RICHARD D. HURT

called as a witness, being previously sworn, was examined and testified as follows:

CROSS-EXAMINATION (cont'd)

BY MR. BERNICK:

Q. Good morning, Dr. Hurt.

A. Good morning.

Q. I'd like to create a bridge from where we were last Friday. I think we'd left off talking about the success rates of your clinic, and I also want to talk about the success rates of other programs and other ways of quitting for just a moment.

A. Okay.

Q. But maybe in order to create that bridge in talking about success rates, let's begin by talking

about your clinic in particular and the kinds of patients that come to see you.
A. Okay.
Q. You --
It's called the Nicotine Dependence Center?
A. That's correct.
Q. And am I correct -- I think you said this under direct examination -- that by and large the people who come to see you are people who are referred by another doctor?
A. Eighty-five percent are referred by physician, 15 percent are self-referred.
Q. Okay. So it would be safe --
Is the right term "physician referred," that 85 percent?
A. That's correct.
Q. And is it true that with regard to this population of people who come to see you, that by and large, as compared with smokers generally, that they tend to have -- or I should say people who are thinking of quitting, that these are people who may not really be ready to quit. They may be, in fact,

unwilling to quit.
A. The ones we're talking about here?
Q. Yes.
A. They're -- they're all -- all sizes and shapes and form. I mean after 15,000 or so patients, which is the number we've seen, the spectrum varies from those who don't really want to stop at all, who we would way are pre-contemplaters who never really thought about this before, all the way to those who are in action even when the physician first sees them. So it's a spectrum. It's just not a one or the other.
Q. But if we want to compare the group to those people who we are going to talk about in a minute; that is, people who are self-referred, that is, come to a quitting program, your group would have -- tend to have more of the people that are unwilling or not yet ready.
A. Oh, that's true. If you're -- if you self-refer yourself, you would be in a later stage of -- of readiness. That's correct.
Q. Okay. So let's make another category here and talk about self-referred.
And again, would it be fair to say that with respect to your group, you have more of those who

are --
What's the best word? Not ready?
A. Pre-contemplaters, contemplaters. They --
Again, the definition is the pre-contemplater is a person who has not decided to stop smoking at all, they haven't even thought about it before. So when you ask a person about their smoking behavior, you ask that: "Would you like to talk about your

smoking? Are you interested in thinking about it?" And the response might be, "Get out of my face. I don't want to hear anything about this. I don't want to talk about it." That's the pre-contemplater.
Q. Okay.
A. So there would be some of those. And there would be people who are contemplaters, who would be, "Well I've thought about it before, but maybe I'll do it on my birthday which is in August." So it's a long way out. And those that are in preparation would be those who say, "Well I've thought about it some. Maybe I'll do it in the next 30 days." So they're just stages of change that occur.
Q. In fact do you have some people who are referred by their physicians, but they just don't really want to be there at all?
A. Correct. And some -- some that are referred by

their physicians who are in that stage of readiness never even show up at all. I mean they don't follow through with the appointment.
Q. You got some people who are no-shows.
A. Yes.
Q. Or unwilling.
What about in terms of degree of dependence? Would you say that the group of people that you tend to see are more or less dependent than those who are in the self-referred group?
A. Well we see both groups. I don't -- I don't mean to imply that we don't see both groups. And I --
Those that would be physician-referred might be a little more dependent, but it -- it -- we've never really analyzed it completely in that way. But they might be.
Q. Would it be fair to say that the fact that -- of the kind of people that you see; that is, that they are physician-referred, is both one of the strengths of looking at this group of people, but it's also one of the weeknesses because they tend to be a different kind of group from what you see in the self-help or voluntary programs?
A. Well we kind of see the whole spectrum, and so

there will be some of those mixed in with that. And in my own practice, in my internal medicine practice, I see people from the community who are not self-selected. They come just to see the -- see the physician. So I have a large number of those that I see in my own practice who are really not on this -- this -- this scale at all that I might deal with individually.
Q. But if you take a look at the group as a whole, I mean haven't you said yourself that the fact of who these people are and that many of them really are not motivated to proceed is both one of the strengths of the program but also one of the weaknesses, one of

the problems you have?
A. Well one of the ideas for the -- for the clinician is to try to move that person from pre-contemplation to contemplation to preparation and then to action. That's -- that is equated with success in the way that we deal with -- with smokers.
Q. Okay. Now a self-referred program, I think that you said that there was a predecessor program to your own at Mayo?
A. No. That's --
The predecessor is for the whole -- whole Nicotine Dependence Center. "Self-referred" just

means how they got to see the counselor or got to see us in the Nicotine Center.
Q. Before the Nicotine Dependence Center was established, I thought you said that there was an earlier program that began in 1975.
A. Right. That was called The Smokers Clinic, correct.
Q. That was called The Smokers Clinic?
A. Right.
Q. And -- and has that been described in your own articles as being a program where people from the community come in --
It's a self-referral program?
A. Well I -- I wouldn't put it the way you have it. That's not accurate. The Smokers Clinic was the only program we had from 1975 through 1988, and it was -- people were referred to it by their physicians because people within the medical community knew about the program. So it wasn't only self-referred.
Q. Okay. So both self-referred and physician-referred?
A. Oh, yeah. Oh, yeah.
Q. Okay. Fine.
A. Sure, yeah. But it was only run three times a year, so it really only applied to people from that

general vicinity, Rochester and Olmstead County --
Q. Okay.
A. -- and the surrounding areas.
Q. Okay. And then would it also be fair to say that there are a bunch of people out there who never really attend any kind of clinic, --
A. Correct.
Q. -- but we call -- what's the -- self-quitters or --
A. They have self-help sort --
Q. Self-help?
A. -- of programs. Right.
Q. Now I think you said on direct examination that the success rate that you see within one year, that if you go for a year, follow people for a year after they start through the program is about 22 percent?
A. If -- if --
Q. All --

A. If they've received the basic service, which is the consultation plus the basic follow-up.
Q. Okay. Do you have data that says what's happened to those people over a longer period of time; that is, that --
It's true, is it not -- let me just ask you this as a background question -- if you follow people for

a year, you can see how many of them that started with the program in fact have quit, but that in succeeding periods of time some of those same people will in fact later quit successfully on their own?
A. Or relapse.
Q. Or go through another program.
A. Or relapse. I mean there is a relapse rate after a year. The relapse rate usually occurs within the first couple of weeks, and then after that it goes down. But at the end of one year, that's not completely stable either way.
Q. Either way.
A. Either way.
Q. Okay.
A. People tend to continue to try to stop because they have other -- other contacts, other interventions, but they also will tend to relapse. We've had people who relapse after being abstinent for many years.
Q. Fine. Have you done a study to determine what the rate is over a longer period of time for your program; that is, the success rate over a longer period of time?
A. No, we really haven't. We did in The Smokers Clinic, but that was a retrospective look.

Q. Okay. Let's talk about The Smokers Clinic.
As I understand it, in The Smokers Clinic after one year it was basically the same range?
A. That's right.
Q. Is it also true, though, that as a result of spontaneous quitting or being part of another program elsewhere, that this number continued to rise as the years passed from The Smokers Clinic?
A. Yeah. But you -- I think that's where we left off on Friday. You have to be really careful with that because the denominator, which is the number of people that entered the program at the beginning, and then you follow those across time, that number became less because we lost people to follow-up, we couldn't follow them up any more. So in an intent-to-treat analysis you would count all of the people that entered in the denominator all the way across. So because we couldn't follow them all the way across, it looked like there was a cumulative increase in the smoking cessation rate over time. And that's a probably --
Q. But that's in fact -- that's in fact what was reported --

A. Right.
Q. -- when the article that was written.

A. Yeah.
Q. There was in fact an article that was -- was written by you talking about the -- about the success rate in your program, I think it's in volume two, tab 83, if you could take a look in your book.
MR. CIRESI: Exhibit number, please.
MR. BERNICK: It is -- it does not have an exhibit number. It was previously designated, but does not have an exhibit number.
MR. CIRESI: May we have the title?
MR. BERNICK: Yeah. "Long-term Follow-up of Persons Attending a Community-Based Smoking-Cessation Program."
MR. CIRESI: That's Exhibit No. 25008.
MR. BERNICK: Okay. That's your exhibit number?
THE WITNESS: That's correct.
MR. BERNICK: The state's exhibit number?
MR. CIRESI: That's correct.
MR. BERNICK: Okay.
BY MR. BERNICK:
Q. Is this an article that you wrote, Dr. Hurt?
A. I along with the other people listed, yes.
Q. Yeah, but you're the lead author; are you not?
A. Yeah. But that doesn't mean I wrote the whole

thing.
Q. Okay.
A. When you have authors, when they're included, everybody contributes, so it's not mine alone at all.
Q. That's fine.
MR. BERNICK: We would offer this, Your Honor.
MR. CIRESI: No objection under 803(18), Your Honor.
THE COURT: Court will receive 25008.
BY MR. BERNICK:
Q. This is the first page that we see here; correct?
A. Yes, it is.
Q. If we zoom in, I've highlighted your name, and we then go forward -- and I guest chart that I wanted to focus on is the easiest chart to read. This appears over on page 5686. Is that what we see at 5686?
A. You mean 686?
Q. I'm sorry, 686, yeah, right.
A. Uh-huh.
Q. And does that reflect that you started out at 22 percent after one year -- that would be right there.
A. Correct.

Q. After seven years you're at 47 percent, and then after 10 years of follow-up the success rate has climbed to 62 percent.
A. That's -- that's what it reports, yes.
Q. Okay.
A. But again, you have to look at the numbers underneath in parentheses. That's the denominator effect. And so as you go across time, we have fewer and fewer people that we're able to follow --
Q. I understand.
A. Because over time we don't -- aren't able to follow them all.
Q. Right. You have -- you have --
In any study that's a retrospective study, as time goes on, the ability to contact people and get information from them deterioriates.
A. Correct.
Q. Okay. So you just have fewer people to work with.
A. That's one of the flaws of retrospective studies as opposed to prospective studies.
Q. And you concluded, in discussing the findings of the study, that permanent cessation continues --
A. Where are you? What page are you on?
Q. I'm sorry. This is page 688. And I kind of cut

it off at the wrong place when I bracketed it here. It says, "Although the one-year smoking cessation rate is important for the evaluation of a program, this study showed that further changes in smoking behavior occurred after one year. Permanent cessation of smoking continued to occur at least through six years of followup and occurred at a higher rate than the one-year cessation rate after physician's advice alone. As such, the cumulative smoking-cessation rate continued to increase beyond that expected as a result of spontaneous cessation of smoking."
What's spontaneous cessation of smoking?
A. Well we don't know exactly the reason why they stop and we didn't have information to be able to tell the reader why they stopped, so we termed that spontaneous.
Q. Okay.
A. It may have been --
Q. That's not part of the program, it's some --
A. Yeah. The problem is trying to take credit for the program for these things that occur later on. It's just -- you can't do that. So there is a spontaneous rate. We don't know exactly why those people may have stopped. They may have had a heart

attack and stopped, it's hard to know. But there was a cessation rate later on, and it was in the two-and-a-half- to six-percent range or eight -- 8.8 was the highest one, that's on Table 5. So it's

small. And that's when we said in the -- in that part of the discussion it's less than -- or actually more than what would happen with physician advice alone.
Q. And that table that you talk about there says 22 percent quit after the first year, and then in each succeeding year you get an additional percentage that you're adding on.
A. That's correct.
Q. That then gives you the total that appears here on the back.
A. That's correct. That's where the 62 percent comes from.
Q. Okay. Now with respect to programs where --
Well let's go down to the bottom one here. Have -- have success rates --
I think you gave a success rate for people who get on their own, a one-year success rate of about five percent?
A. It's in -- it's in the five to seven percent range. Depends on which study you read.

Q. Okay.
A. It's relatively small.
Q. But again, if we wanted to go beyond just that one year and talk about the success of people who quit on their own after one year, isn't it true that again you'd get numbers -- I think Dr. Fiore's numbers are in the range of approximately 40 percent or more. There's a range that gets reported. But you can get success rates in self-help studies of upwards of 40 percent after more than one year. In fact, I think that's a 10-year figure, correct?
A. I'd have to see what Dr. Fiore said. I don't recall that number specifically.
MR. BERNICK: This is not a disclosed document, this is a study by Dr. Fiore. We'll not offer it in evidence.
MR. CIRESI: It's not a disclosed document?
MR. BERNICK: No, that's correct.
MR. CIRESI: Do you have a copy, counsel?
MR. BERNICK: I've got my copy.
MR. CIRESI: Well I'll take that.
Thank you.
MR. BERNICK: I'm going to need to display it here in a minute, but --
BY MR. BERNICK:

Q. See that Dr. Fiore also has studied the issue of quit rates, actually comparing quit rates between programs, formal programs and self-help programs?
MR. CIRESI: Excuse me. Your Honor, again, there's not an exhibit offered, there's been no foundation laid, and he's testifying from the exhibit.
MR. BERNICK: I'm going to ask him questions.

MR. CIRESI: I object to the form -- I object to the form of the question.
THE COURT: Sustained.
MR. BERNICK: Okay. I'll reput the question.
BY MR. BERNICK:
Q. Dr. Hurt, people like Dr. Fiore have studied this group; correct? This focusses on --
A. I haven't read this in -- I don't know when the last time I read it. I read it before. The title is "Methods Used to Quit Smoking in The United States: Do Cessation Programs Help." If I'm really going to get into very much detail for what your questions are, I'm going to need to read this --
Q. Okay.
A. -- in order to refresh my memory. It's been --

I don't know when I last read this. I read it before, but it's probably been months or maybe even longer.
Q. Well let me ask you a general question.
A. Because this was written in 1990.
Q. Sure.
A. It's not one that I refer back to every day.
Q. Is Dr. Fiore one of the other people that does research in this area?
A. Dr. Fiore does a lot of research in nicotine, yes.
Q. And based again on your own knowledge, have you studied, have you reviewed the articles that deal --
You testified on direct examination to this number here. That's a one-year number.
A. Uh-huh.
Q. Have you reviewed the articles in the literature that deal with what the success rate is of self-quitters over longer periods of time? Have you done that?
A. I have, but I couldn't -- you know, I would have to go back and look at articles like this to give you any numbers.
Q. Okay. So right now --
A. There is a rate and it depends upon the study,

and this is one study, and there are a lot of studies out there. Ours is one study, but I said earlier, it has its own little flaws because it was a retrospective study.
Q. Okay. But at this point in time you're not able to tell us what the quit rate is for people who quit on their own?
MR. CIRESI: Objection. It's a misstatement.
MR. BERNICK: I'm just asking.
MR. CIRESI: Objection. Misstatement of the evidence.
THE COURT: Do you understand the question?
THE WITNESS: I'm not sure.

MR. BERNICK: I'll reput it.
THE COURT: Rephrase the question, please.
MR. BERNICK: Sure.
BY MR. BERNICK:
Q. At this point, Dr. Hurt, are you able to tell us the rate at which self-help quitters, people that quit on their own, the rate at which they succeed beyond one year of follow-up? Can you tell us that?
MR. CIRESI: Objection, no foundation. It would depend upon the study.
MR. BERNICK: I just laid the foundation,

Your Honor.
THE COURT: You may answer that.
A. It would depend upon the study. And there is a rate and there are published articles like this one that would say that it's in -- in a five or so percent range on --
These people are repeatedly trying to stop. If they haven't stopped the first time that they tried to do that, they will -- they will try again at some time in the future. Whether or not that person in year one tries again in year two, three or four or five, is dependent upon that individual. So there is a -- a -- a stop rate in the future, and it's probably still in the single-digit numbers as far as success rates for people who have failed before. But it depends how long you follow them. If you follow them long enough, you know, if you follow them long enough over time --
Q. Yes.
A. -- then there will be another stop attempt in the future or they will have a serious medical consequence or they will die. I mean so -- you have to --
What length of time is important as far as that statement is concerned.

Q. Can you give me success rate, the successful quit rate for self-help quitters for any year beyond the first year; that is, after five years or ten years?
A. It won't --
It will be in the same single-digit five to seven percent range --
Q. Per year?
A. -- that it was in the first year. But then you're going to be recycling people through all over again. Those are still the 95 percent that didn't stop that tried to stop at one year, at some point in the future they will try again.
Q. Okay. And if we -- if we were to follow --
A. And so if it's focussing in year three, then that same rate would be probably operational at the five to seven percent range.
Q. Well --
A. So I don't -- so I don't know where the 40

percent comes from. That's -- I'd have to read this article to see why he said that.
Q. Let me just make sure I understand what you're saying. In each succeeding year these people may decide to quit again.
A. The 95 percent that did not.

Q. The 95 percent. In other words, five percent successfully --
If we start out with a group of a hundred people, first year, 95 percent try to quit, fail to do so, five percent succeed. We then follow that 95. What you're saying is that in each succeeding year we would get, again, five percent successful, 95 percent not successful?
A. It would be in that range. But I'd have to again look at the study we're talking about. And it depends on what happens to them. You know, probably one of the most effective forms of smoking intervention is the heart attack, and only half of those stop smoking. So it depends on what happens to the people as time goes on. You can't separate them in time.
MR. BERNICK: Your Honor, this is -- this is not responsive. I think I'm asking fairly simple questions.
THE COURT: No, I think that last answer was responsive to the question.
MR. BERNICK: Well then maybe I'll rephrase my question, Dr. Hurt.
THE COURT: Counsel, it's been ruled on as responsive.

MR. BERNICK: Okay. Well then I'll ask a different question.
BY MR. BERNICK:
Q. I'm really focused on the total cumulative success rate of people who quit on their own. Can you tell me the total cumulative success rate of people who quit on their own in the years past year one?
A. It would be in that range, the five or -- five or seven percent range on an annual basis.
Q. I said --
A. But the --
MR. CIRESI: Can he finish?
Q. -- total --
MR. CIRESI: Excuse me. Your Honor, he interrupted.
THE COURT: Yes. Please allow him to answer the question.
MR. BERNICK: I'm sorry. Sure.
A. So it would in the five to seven percent range in year two just like your drawing had started out, but it depends on the population, it depends on the people that we're talking about. And it's -- it's not simple, it's not simple at all because people are

different, their circumstances are different, their medical complications are different too.

Q. What do the researchers conclude about the --

Your program is, I think you said your facility is unique? "Unique facility," I think those were your words?

A. I think it is only because of the breadth of the interventions we provide. We're not any better than anybody else at it, we just have more interventions to provide, more services for the patient. Not anybody else that I know has outpatient programs, inpatient programs to the extent that we do.

Q. By and large, isn't it true that the research shows that there may be unique programs that have very high success rates, but that by and large people who use self-help tend to be more successful in quitting than people who go to programs? Isn't that what the research shows?

A. I'd have to see what research you're talking about. If you've got something in mind, we can look at it. But I wouldn't make a blanket statement that research shows, and there's a lot of research that's going on.

Q. Well --

A. So if you got something we can look at, I'd be glad to look at it.

Q. Before you came in to testify, you talked about --

You came to testify about your research program -- your -- your Nicotine Dependence Center program; correct?

A. No. I came to testify that nicotine is addicting and the other things we talked about earlier. I didn't come to talk about our program necessarily, it just happens to be that's what I do for a living.

Q. Well I thought you testified your program -- on direct examination and the program and the procedures that you followed; didn't you?

A. Say that again.

Q. On direct examination, didn't you come to testify about the program and the procedures that you follow?

A. I think my expert report really outlines what -- what my opinions were as far as the reasons I came to testify. Had to do with nicotine addiction, manipulation of nicotine. Those -- those sorts of things are the --

My program is part of what I do for every day -- my everyday life.

Q. Did you or did you not testify on direct

examination to what your program did?
A. I did.
Q. Okay.
A. I was asked the question. I answered the question.
Q. And before you came to testify to that, did you take a look at the research to see whether the procedures that you outlined to the jury were more or less effective in producing quitting than self-help? Did you do that?
A. We looked at all of the literature that was available at the time that we started the program back in '88 as far as other types of programs that were available. Self-help is one of the things that we looked at, yes.
Q. So you reviewed that literature before you came in to talk to this jury?
A. I reviewed that literature before I started -- we started the program back in '88. That's been ten years ago.
Q. In preparation for your testimony, did you take a look at the research on whether self-help was more or less effective than your program?
A. Not in preparation for this. This is -- you know, as I said, this is the foundation of our

program itself, was higher levels of interventions produce better success rates. Higher level of interventions above -- above self-help would be expected to produce better success rates.
Q. Well what does the research then show --
The research where the researcher compares between self-help and cessation programs, which is the more effective? What does that research show?
A. Self-help versus --
Q. Cessation programs.
A. It depends on the cessation program. And -- and for ours, it's several times higher than it is for -- even for physician intervention. So if you have levels of intervention, self-help would be one, physician intervention would be the next level up, counselor intervention would be the next level up, and then so on. So that's the basis for which we have looked at our program over the years.
Q. What about Dr. Fiore's research, are you familiar with that research on that subject?
A. I have to see which articles --
He's written a lot of articles, so if you've got an article you'd like me to review, I'd be glad to do that.
Q. Well the one -- the one in front of you --

A. And he -- his group is very prolific. They publish like --
(Discussion off the record.)
Q. It's the article in front of you, but that's all right, we'll -- we'll come back to that in a minute.

With regard to the people who are not the quitters, as people who continue to smoke who either have attended or not attended one of these programs, let me ask a couple questions about that.

You testified on direct examination, and I think you referred to a document that said that most people, when asked, say they would like to quit. And the numbers are very high, 80, 85 percent I think you had in the document; correct?

A. The numbers are very high, yes.

Q. Isn't it true that when people come to talk to a doctor about their smoking and the doctor tells them that they should stop, that very frequently -- what -- what -- the information that you're reciting there picks up on the patient's response, the patient says well I'd like to quit but I can't. Isn't that the source of the information, the source of the 80 or 85 a percent number?

A. Well the 80 to 85 percent number comes from surveys that have been done like the surveys done in

the internal documents as well as surveys of -- of others. I'm not -- it doesn't only come from the physician interaction. Very few people come in to see the physicians saying I want to come in to stop smoking. That's not exactly the thing that most of them come in for. Most of them come in for other reasons, and it's incident to that intervention -- or that -- that occurrence that smoking may come up.

And we spend a lot of effort trying to teach our physicians to at least ask about it, because unless they ask about it, then the smoker may or may not even want to talk about it. So it doesn't necessarily come from that sort of information.

It could, but there's surveys that have been done asking people that same question.

Q. Isn't it true that the reliability of those numbers has been questioned by people like Dr. Koslowski because of the patient's incentive to say yes, I would like to, but I can't?

A. I don't know what --

You obviously have a study you're referring to, and if you'd like, I'd be glad to look at it.

Lynn Koslowski writes lots of articles, and so for you to say that makes it -- I can't answer that because I don't know which article you're talking

about. He also talks about ventilation, low tar/low nicotine cigarettes, people being unaware of the ventilation holes in the cigarettes, covering up ventilation. He -- he's written a lot of things. So he's a -- he's a very, very prolific writer. So I couldn't tell you that. Maybe you can show me.

MR. BERNICK: This is GK -- GK112. Sorry, Your Honor, this is not in the notebook that we've prepared, but it's been disclosed.

Let me switch. I'm going to direct your

attention to that highlighted page.
BY MR. BERNICK:
Q. Dr. Kozlowski is a -- a -- an established researcher and writer in the area of smoking behavior; is he not?
A. He is, yeah.
Q. Okay. And this article that's before you appears in The Lancet, which is a peer-reviewed journal and a prestigious one?
A. It is.
Q. Okay. And Dr. Koslowski in this article is writing in fact about smoking behavior; is he not?
A. It says "What Researchers Make of What Cigarettes Smoking Say: Filtering Smokers' Hot Air."
MR. BERNICK: Okay. We would offer it,

Your Honor, as a learned treatise.
MR. CIRESI: No foundation yet, Your Honor. He hasn't asked whether he's relied on it.
MR. BERNICK: I don't believe, Your Honor, the rule requires that he rely on it. The rule requires that it be established to be a reliable authority. Otherwise, the expert would be able to define what it is that he can be crossed on.
THE COURT: Doctor, have you read the article?
THE WITNESS: I have not.
THE COURT: Well I think he has to have the opportunity to read it --
MR. BERNICK: Oh, surely.
THE COURT: -- so we know if it's reliable.
MR. BERNICK: Sure, go ahead. Why don't you take a look at it.
THE WITNESS: Read the whole article?
MR. BERNICK: It's one page long.
THE WITNESS: Okay, be glad to.
Okay.
Q. Dr. Koslowski has written an article; correct?
A. Correct.
Q. Published in The Lancet; correct?
A. 1980.

Q. 1980 in The Lancet, March 29 of 1980.
A. Right.
Q. Okay. The Lancet is a peer-reviewed and authoritative journal in the field of medicine?
A. It is, yes. Uh-huh.
Q. And Dr. Koslowski is a recognized authority in the field of addiction; correct?
A. Particularly with regard to smoking, yes.
Q. Okay.
MR. BERNICK: We would offer this article as a learned treatise, Your Honor.
MR. CIRESI: Under 803(18)?
THE COURT: Yes.
MR. CIRESI: We have no objection.
THE COURT: Court will receive GK112.

BY MR. BERNICK:
Q. Title of the article is "What Researchers Make of What Cigarette Smokers Say: Filters Smokers' Hot Air." Correct?
A. That's what it says.
Q. And the article actually begins by talking and pointing out the fact that "given the widespread harassment of cigarette smokers and the evidence that smoking actually is dangerous to health, it is not surprising that smokers sometimes lie about their

smoking. Lying about smoking habits has become so commonplace in smoking-treatment clinics that many researchers have used assays for the biological markers of smoking to confirm their patients' claims to have stopped smoking."
The article then goes on to discuss the literature --
And before it does that, do you see where it says, "Since researchers have readily challenged the validity of the verbal reports of smokers on the above issues, it is surprising how rarely they have second-guessed the claim of -- claims of smokers that they want to or have tried to stop smoking." Do you see that?
A. Uh-huh.
Q. "How better for a smoker to avoid the pesterings of a physician or other interviewer than to say, whether believing it or not, that he wants to and has even tried to give up cigarettes? And, if the questioner asks if the attempts to stop have been serious, who would want to confess to a half-hearted effort? Yet, answers to questions on wanting to stop and trying to stop have regularly been used uncritically -- as if the smokers must -- now must be telling the truth."

He then goes ahead and reviews McKennell. McKennell is a researcher that deals -- dealt with smoking dis -- what's called smoking dissonance; correct?
A. I don't recall his name at all.
Q. Well you showed the jury in your direct examination a study called project LIBRA -- that's Plaintiffs' Exhibit 11102 -- in talking about how smokers deny the risks of smoking. Do you recall that?
A. I recall that, yes.
Q. Isn't it a fact that the LIBRA study was based upon McKennell's work?
A. I'm -- I didn't know that until right now. If that's correct, that's correct.
Q. Have you taken a look --
When you talked about the scientific literature, you talked about the fact of smokers' denial, have you familiarized yourself, are you an expert in the area of smoking cognitive dissonance; that is, have

you taken a look at the studies that have been done?
A. I've looked at some of those studies, yes.
Q. Isn't the fact that the originator, one of the originators of this theory wrote about this theory as early as 1957 in the published literature, Dr.

Ketsinger?
A. Could be. The cognitive dissonance theory has been out there for a long time, and in the current mode of talking about that, that is not something that is generally acceptable within -- within this field. We don't -- we don't do that. We talk about denial, rationalization, which is basically the same thing that -- that dissonance was back, you know, 40 years ago.
Q. So cognitive dissonance is no longer what?
A. Well, if I were to call upon a psychologist at the Mayo Clinic and ask him "Do you operationalize cognitive dissonance in your everyday activity as a psychologist?" They would say, "That's really old. We don't do that that much any more."
Q. No longer the accepted theory?
A. It's -- it's no longer operationalized when you take care of patients.
The terms have changed over time, and so cognitive dissonance is, in many respects, rationalization when you're dealing with an addictive disorder and denial.
Q. Is it dissonance with two esses or one?
A. Two.
Q. So the LIBRA study that you cited to the jury,

Plaintiffs' Exhibit 11102 --
A. Well LIBRA was the code name. It sounds like a country, you know, so I --
Q. But that was a cognitive dissonance study; wasn't it?
A. It -- I think you're right.
Q. So a -- a researcher today --
A. And I -- I don't know if that study was even published. Maybe it was pubished in the scientific literature. Maybe you know. It was a B.A.T study, I think, from your company, so I don't know if it was published in the scientific literature or not as the project LIBRA. Was it?
Do you know whether project LIBRA in that B.A.T study that you said to the jury, said anything different from what McKennell said in the published literature at the same time?
A. I'd have to -- I'd have to go back and compare the two.
Q. Well the literature review takes place, Dr. Koslowski goes through studies like McKennell's and then comes back to conclude, "We have described some inconsistencies in the application of critical acumen to the verbal reports of smokers and have encouraged caution in what is made of what smokers say about

their wish to give up smoking and their attempts to do so. Misleading self-reports (whether self-serving or even self-castigating) are not limited to smokers; people who are overweight or who are guilty of any of the presumably behaviorally correctable sins of our age are likely dissemblers. Whatever may cause these lapses in discernment on the part of the investigators, we know of no reliable cure and have ourselves lapsed on exactly those same rules." Do you see that statement there?
A. Same issues, yeah.
Q. And Dr. Koslowski is not the only one who has spoken out and said let's be cautious when we take those figures of how many people wish to stop. He's not the only one who said these words; is he?
A. Well I think that implicit in this article is also the self-report of abstinence, and that's the other side of this, biochemical confirmation of abstinence.
And there is an old article, this is written in 1980. There is a whole literature about biochemical validation of self-report that has evolved since then, and more recent articles would say self-report of abstinence is really a very good way of doing it. We realize that some people will not always be able

to tell us exactly how much they're smoking or even if they are smoking. They may be embarrassed. But as a rule, the self-report is a very reliable measure even for abstinence. And that's been shown in two or three or actually several different reviews that are, you know, much more recent than this one. So --
Q. None of which you've brought to this court though.
A. Pardon?
Q. None of which you've brought to this court.
MR. CIRESI: Objection, Your Honor. It's irrelevant, argumentative.
THE COURT: It's argumentative, counsel.
BY MR. BERNICK:
Q. Isn't it a fact that when we take a look, Dr. Hurt, at the population of people who have not quit, that you yourself are not able to define any set of smokers who you believe are fundamentally not able to quit? Isn't that true?
A. I really don't know. I don't follow the question at all.
Q. Well we've talked about all the people who have successfully quit. We've talked a little bit about the people who say they would like to quit but have not. That's what the subject of Dr. Koslowski's

article is.

Isn't it a fact that even based upon all the experience that you have, you are not prepared to say today that there is a group of smokers who can't quit? Isn't that true?
A. If I had a patient in front of me that has tried to stop smoking multiple times before, would I give up on him? No, I wouldn't do that.
Q. And more than that, you would further not say that there is a group of smokers that can't stop; true?
A. I think I just said what I would say, and that --
There's no way to identify prospectively in a person in front of you who may have tried dozens of times before to stop, whether or not they're going to be able to stop on this attempt. Maybe we have better treatments now, maybe they've had other influences that go into it. So I -- trying to identify --
If I have a patient in front of me, it's a patient, you know, and I try to do the best I can in taking care of that patient. If that patient fell into a group that I kind of a priori said, well there's no point in worrying about you, so I won't

bother talking about your smoking, that would be -- I think that would be a serious error on my part as a physician. I just wouldn't do that.
Q. Well I'm talking, though, about not just an individual, I'm talking about the ability to even define a group. Isn't it true that basically you believe that stopping smoking is a process and there is no defined group of people who you say "These people just can't stop?" There is no such group; correct?
A. You're reading from what I'm not sure, but I do say frequently that stopping smoking is a process, and we -- I have written that in other things that I've written. Because it is a process. It doesn't happen all at the same time. And if a person can stop on their own without me doing anything, that's fantastic. I think that's great. I have no -- I have no preconceived notion that everyone should come to a smokers clinic to do something like this, and if a friend or relative or neighbor is able to stop on their own, I think that's fantastic and I think they ought to be -- feel really good about themselves about being able to do that.
I have people call me up all the time to tell me, I see people on the street that say you don't

remember me, but back five years ago I was in your office and we talked about this, and I didn't want to do something then but something's happened in between. I just want you to know that I've stopped smoking a year and a half ago. That happens not every day, but it happens a lot.

This is a process that takes a long time for some people, and some people never get it, and some people do die of tobacco-related diseases.
Q. But you cannot define any group of people, because it's a process, there is no group of people that you can say this group of people, they're just not going to be able to stop; true?
MR. CIRESI: Objection, asked and answered.
MR. BERNICK: I don't think I've got an answer.
THE COURT: It's repetitive.
MR. BERNICK: I don't think I've got an answer, Your Honor.
THE COURT: Sustained.
BY MR. BERNICK:
Q. Did you give a deposition in this case, Dr. Hurt?
A. I did.
Q. This is at page 150, if you want to take a look

at your deposition. I think we put it over to the right side there.
A. Which volume?
Q. Would you take a look --
I think it's probably going to be volume one, page 150.
A. Okay.
Q. Do you see you were asked this question and gave this answer at line eleven. "How do determine -- How do you determine which set of smokers simply can't stop?
"Answer: I don't think there is a set that simply can't stop. I mean, the example I gave you earlier about the guy that finally stopped but after he had developed lung cancer, was able to stop but it took a long time. Stopping smoking is a process, so I don't know that there is a group that I'd say can't stop. There are obviously some that are more difficult to treat than others and some end up dying of their tobacco-related diseases before they're able to stop with other methods. So when a patient's in front of you, you may want to try to help them, and if they are a smoker you want to try to help them smoking.
"Question: Have you ever had anyone go through

the program at the Mayo Clinic, and either at the end of that program or thereafter, relapsed, who come back to you and you told them 'I just don't think you can do it. You are wasting your time and my time?'
"Answer: I don't recall ever saying like that -- anything like that to any patient. What we try to do is to figure out different options for them to use just like we were treating any other completely condition. I mean just -- just because a person's blood pressure isn't under control with one or two different medicines doesn't mean we should say

you're stuck with it. We try to continue to work with them to fix whatever the problem is."

Were those questions asked of you and were those your answers in deposition, Dr. Hurt?

MR. CIRESI: Your Honor, totally consistent with what's been testified to here.

MR. BERNICK: Well Your Honor, I object to the statements in front of the jury. The jury can reach their own conclusion about the answer that he gave. The question is whether there's a defined set of people who can't stop.

MR. CIRESI: Objection, improper use of deposition.

THE COURT: Sustained.

BY MR. BERNICK:

Q. If we talk about the range of difficulty, Dr. Hurt, the range of difficulty in whether -- in quitting smoking, I think you've testified that you had difficulty yourself in quitting?

A. I did.

Q. Okay. And is it true that other researchers have looked at the question of how difficult it is to quit over a long period of time, really for more than 30, 40 years?

A. There have been a lot -- a lot of people that's been done in that area, sure.

Q. Okay. And would it be fair to say that there is a range, some people find it very difficult to quit, some people find it difficult, some people find it easy. Would that be a fair statement?

A. There is a spectrum of nicotine dependence.

Q. Okay.

A. That's they way you speak of it. It's a spectrum that looks basically like a ski slope. The higher you go up the ski slope, the more difficult it is. And therefore we try to match the interventions for the individual based on those levels of dependence.

Q. Okay. Would you agree with the statement that

for many people it's easy, for most it's somewhere in between easy and difficult, and only for a minority it is really difficult?

A. I'd have to see what you're reading from.

Q. I'm just asking whether you would agree with that assessment.

A. Well it's probably something that's been written by someone. If it's an article or if you'd like me to look at the whole thing, the context in which that statement was made, I'd be glad to look at it.

Q. It's a very simple question, doctor. I'm asking just whether you agree with that basic proposition or not.

MR. CIRESI: Objection, asked and answered, Your Honor.

THE COURT: Counsel, do you have a article

that you'd like him to see?
MR. BERNICK: Sure.
THE COURT: Why don't you show it to him.
MR. BERNICK: I'd be more than happy to do it, but I'm just asking the witness for a very basic proposition. I don't have to show him.
THE COURT: Show him the article, please.
BY MR. BERNICK:
Q. Take a look at volume one, tab 34.

MR. CIRESI: May we have the exhibit number?
MR. BERNICK: Exhibit number is GK299.
A. Thirty-four?
Q. I'm sorry?
A. Thirty-four, is that what you said?
Q. Tab 34.
A. Yeah.
Q. That's the Horn monograph?
A. Yes.
Q. Okay.
A. A NIDA monograph from January of 1979.
Q. A NIDA, N-I-D-A?
A. National Institute of Drug Abuse.
Q. Okay. Can you tell us what the National Institute of Drug Abuse is?
A. It's a branch of the National Institutes of Health that has to do with drug abuse. There are several other branches.
Q. Okay. And has the National --
Has NIDA been involved in smoking-dependence issues for a very long time?
A. They -- they've done some work, less some years than others. But they've been involved with it, sure.

Q. And in fact some of the people that we -- the jury has already heard about this this case, Dr. Henningfield, for example, used to be chief of the Biology of Dependence and Abuse Potential Assessment Laboratory at the Addiction Research Center there; correct?
A. That's correct.
Q. And a number of people who have been heavily involved and are authoritative in the field of nicotine dependence and nicotine addiction have written for, spoken at, and worked at NIDA; correct?
A. They have.
Q. Okay. And Dr. Horn in particular has got a monograph that's been published here in connection with NIDA proceedings in 1979?
A. That's right.
Q. Is it true that a wide variety of researchers on smoking-related issues appeared and gave papers at the NIDA conference in 1979?
A. I don't know which conference this was. There are a lot of conferences.

Q. Okay. Dr. Horn himself is a person that's been cited in several Surgeon General reports. He's looked at smoking behavior for 30 or 40 years; correct?

A. That is correct.
Q. He's a recognized authority in the field of smoking behavior?
A. Uh-huh.
Q. I'm sorry?
A. Yes.
Yes.
Q. Okay. And are NIDA proceedings and publications publications that have recognized authority as reliable sources within your field?
A. Yes.
Q. Okay. We --
And is this a part of the NIDA proceeding in 1979?
A. I don't know what it is. It says cigarette smoking is a dependence process, got an editor, NIDA, research monograph number 23, January 1979. If I've seen this before, it's been so long ago I can't remember what it is. I mean it's a one chapter out of -- I'm not sure what it came from.
Q. But you see that it's actually issued by the National Institute on Drug Abuse, NIDA?
A. Yeah, Division of Research, Fisher's Lane. Yeah, that's what it says at the bottom. So I assume that's the title page of the -- of the whole report.

But I don't have the whole report, I just have the one chapter. So if it's a conference, it could be a conference. A lot of -- a lot of monographs come out of conferences.
Q. Take a look.
(Document handed to the witness.)
Q. That's the whole document.
MR. CIRESI: Do you have another copy of the whole document?
MR. BERNICK: We're not going to offer the whole document. Just this one chapter.
A. So it was a meeting -- it was a meeting on June 19, 1978. So you're right, this came from a meeting.
MR. BERNICK: We would offer it, Your Honor, learned treatise.
MR. CIRESI: The entire document?
MR. BERNICK: No, just -- just this Exhibit GK299.
MR. CIRESI: We object, it's incomplete.
THE COURT: I would be concerned about just parts of a learned treatise unless he's reviewed it.
MR. BERNICK: The whole thing is a series of papers, Your Honor. We -- we would offer -- we would be prepared to offer the whole thing.
THE COURT: I understand what it is,

counsel.
MR. BERNICK: I'm sorry?
THE COURT: I understand what it is, but you're putting this in through a witness who's not even read what you're trying to establish as a learned treatise. It's difficult unless he has a chance to look through it.
MR. BERNICK: Well he can flip through the table if he wants.
THE COURT: Well he's entitled to the read it, not to flip through, if you want to introduce it through this witness. Okay?
MR. BERNICK: All I want to introduce through this witness, Your Honor, is the chapter.
THE COURT: I'm fully aware of what you want to introduce, counsel.
MR. BERNICK: All right.
THE COURT: Okay. But you're introducing a portion of a large transcript, and he has not had the opportunity to read it.
MR. BERNICK: Well I think we've already established that he's familiar with NIDA proceedings, and I established that we're -- that we're -- we're talking about a NIDA proceeding, this is part of a NIDA proceeding. The only purpose of tendering the

larger document is for him to confirm that this is part of the NIDA proceeding, and I believe that that lays an appropriate foundation under the rule.
THE COURT: Well --
MR. CIRESI: We object, Your Honor, it's an incomplete document. In order to know whether it is out of context, in context, reliable or not, a witness would have to review the entire document, --
THE COURT: All right.
MR. CIRESI: -- which he has not done, for which I object.
THE COURT: Why don't we take a short recess, and if you're able to review the article in context with the entire proceedings and are satisfied that it's not taken out of context, then we'll allow it. Okay?
Take a short recess.
THE CLERK: Court stands in recess.
(Recess taken.)
THE CLERK: All rise. Court is again in session.
(Jury enters the courtroom.)
THE CLERK: Please be seated.
MR. BERNICK: Thank you.
BY MR. BERNICK:

Q. Dr. Hurt, have you had the opportunity to take a look at the -- the exhibit itself, GK299, and at

least familiarize yourself generally with the -- with the proceeding from which it was taken?
A. I have.
Q. Okay. And do you see that there's a foreward to the proceeding by Dr. Krasnegor -- or an introduction I think it's called?
A. Correct.
Q. And if you go down, I think it's the bottom of the second paragraph, he talks about the purpose of the -- of releasing this collection of papers. Do you see that purpose with regard to providing an overview to the scientific community?
A. It's the foreward?
Q. I'm sorry, it's called the introduction.
MR. CIRESI: Your Honor, we're going to object to reading from an exhibit that is not in evidence.
MR. BERNICK: I'm not reading from the exhibit, Your Honor, I'm trying to establish what the exhibit is.
THE COURT: All right. You may answer that.
A. I'm having a little trouble finding it. Okay,

here it is, introduction.
Q. If you go down a couple paragraphs, you'll see where he talks about the purpose of putting together this collection of materials.
A. Well I don't see --
I'm looking for the word "purpose." Give me a clue, because I'm having trouble --
In the second paragraph it says "Despite this linkage, relatively little scientific research has been conducted...."
Q. If you come down, he has a statement of providing an overview to the scientific community. Do you see that on that page?
A. Which paragraph?
Q. May I approach the witness?
I'm sorry. Sentence that begins --
A. Okay. Yeah, I see that.
Q. And does that state the purpose of assembling the volume?
A. Yes. Says this --
Q. No. Does it state the purpose? Counsel doesn't want --
MR. CIRESI: Well --
Q. See where it states the purpose?
MR. CIRESI: Your Honor, I'm going to

object to the inappropriate comments of counsel of what I don't want. This is not an exhibit that has been designated, so we don't have a copy, and my objection is that it's not in evidence so it should not be read from.
THE COURT: I'll allow him to answer the question.

A. I'm still trying to find the word "purpose." I can tell you what that sentence says, but I have scanned it three times and there's not "purpose" written in there.
Q. In your own view, does it set forth the author's statement of why the volume has been assembled for purposes of being disseminated?
A. I can read what it says. I mean it's --
This volume, which includes papers presented at this symposium, is designed to provide an overview for the scientific community on the smoking habit and an agenda to guide future research in this area. That's what it says.
Q. Okay. And -- and -- and is --
Would that be a fair characterization of the volume that's been put together as you have been able to see the table of contents and the general scope; that is, was --

A. Yeah, this -- this is a monograph, and just so everybody understands what a monograph is, a monograph --
Q. Excuse me. I'm sorry, I didn't -- I don't think I had finished my question.
Does that statement that you read from, is that consistent with your view based upon the reading that you've been able to do? And I understand you have just been able to flip through it. Does that statement comport with your view about the overall purpose of this volume of papers?
A. That's what I was trying to explain.
Q. Okay. Go ahead, I'm sorry.
A. So a monograph is a collection of papers, a conference where people speak at a conference, and they record the -- record those proceedings basically, and so this person -- or the people that submitted these papers to this conference, after they made their speech, then those papers become part of a monograph. So it's not a peer-reviewed process in that it doesn't go out for other people to look at prior to the time that it's published.
NIDA is a good place, but this is not a peer-reviewed piece of work in that sense, and the articles here are basically the opinions of people,

and they may or may not be based on all the available science. That's what I'm saying.
Q. Okay. But I'd like a answer to my question.
As you looked at the volume, was it consistent with the purpose that is described by Dr. Krasnegor; that is, to provide an overview to the scientific community about the current state of science in the area?
A. I think it misses a lot of -- lot of areas, but I mean it -- it provides information that could be used by the community to understand different individuals' opinion about this, that, or the other,

and some science. Lot of the reports in here are basically a speech, and specifically the one that you're talking about is this person's personal experiences as well as -- as other things that he has thought about. Even mentions things like his own biases, his own prejudices in -- in writing. So this is not something that I would rely on for my testimony. It tells me where Dr. Horn was in 1979, but I would not rely on something like this for what I do on a day-to-day basis. Not at all.
Q. Okay. Well it talks about where Dr. Horn was in 1979; right?
A. That's -- that's correct.

Q. And you've talked about where you are here today in part based upon your own personal experiences as a smoker; correct?
A. Correct.
Q. You feel that your own personal experiences as a smoker -- as a smoker are germane and indeed very much a part of your opinions as an expert; correct?
A. They are part of who I am. I can't help that.
Q. Okay. And do you recognize, as you have characterized what Dr. Horn has said as being his own personal views in 1979, there's an important part of your own testimony before this court that reflects your own personal perspective based upon your own experiences; correct?
MR. CIRESI: Your Honor, I'm going to object to this as being irrelevant. There's no foundation for the document. Dr. Horn is not here to be cross-examined.
THE COURT: The objection is sustained.
MR. BERNICK: The objection to the question?
THE COURT: To the question is sustained.
MR. BERNICK: Okay.
BY MR. BERNICK:
Q. With regard to the particular chapter that

pertains to Dr. Horn, if you take a look at the footnote, do you see the footnote to the chapter?
MR. CIRESI: Your Honor, I'm going to object to the use of the document. There's no foundation for it under 803(18).
MR. BERNICK: Your Honor, I'm attempting to lay the foundation. There's a footnote that pertains -- it says this actually was taken from a published article. That's what I'm directing his attention to.
MR. CIRESI: If I may, Your Honor, the witness has already stated he does not consider it reliable. There's no foundation under 803(18).
THE COURT: Okay. I think you should ask the witness the question and determine its reliability, and then I'll rule on it.
MR. BERNICK: Okay.

BY MR. BERNICK:
Q. If you take a look at the footnote to the chapter -- see the footnote?
A. Which page of the volume?
Q. It's on page 28.
A. Okay.
Q. Okay. Do you see that -- that in fact the -- the papers that have been presented were taken with

minor changes from an article that Dr. Horn published?
A. Yeah, the International Journal of Health Education.
Q. Okay. And is that a peer-reviewed publication?
A. I couldn't tell you. I don't -- that's not on my reading list. International Journal of Health Education is not something I've ever seen.
Q. So you don't know one way or another whether the text of the article -- the text of the monograph that appears here is taken from a peer-reviewed publication or not.
A. Correct. I mean it says it was put into this other journal, but it's a journal that I don't -- I don't have any knowledge of.
Q. Would it be fair to say, Dr. Hurt, that the views that you expressed on the degree of difficulty in quitting are not necessarily the views of other people who have practiced in the same field for many, many years?
A. If you give me an example of an individual, I might -- can -- can tell you.
Q. Dr. Horn.
A. There are differences of opinion, sure.
Q. Dr. Horn is -- would be a good example; correct?

A. I don't think Dr. Horn ever really treated patients. He was an epidemiologist whose main fame is in Hammond and Horn where the connection between smoking and lung cancer and other diseases was made. I don't know that he was ever a patient-seeing person. He has a Ph.D., and I don't -- I don't know exactly if he ever had a clinic per se.
Q. In fact, Dr. Horn is -- is the recite -- Dr. Horn --
Are you familiar with his publications on modifying cigarettes, smoking habits in high school students?
A. I have seen reference to those. I couldn't tell you if I've actually reviewed those articles. Again, we're talking about things that were published a long time ago, and we've actually learned a lot about how to treat high school students since then, and we -- you know, we're doing it even as we speak.
Q. Dr. Horn has been cited for those articles on smoking behavior in five different Surgeon General's reports; hasn't he?
A. Could be. I don't --

You know, the references in the Surgeon General's reports are long because the reports are long. A lot of references are put in the Surgeon

General's reports. So it could be, yeah, sure.
Q. I'm sorry, you said that the Surgeon General's reports are wrong?
A. Long.
Q. Long. Okay.
A. Long.
Q. But --
A. Lots of pages, lots of references. The people that write the chapters of Surgeon General's reports go through the literature that's relevant to their particular chapter. We intend when we do that to be all-inclusive or more inclusive. So just because someone is cited in a Surgeon General's report doesn't mean it was good or bad, it was just cited. It's like any other article.
Q. I thought you told us that Dr. Horn is a person, before we took the break, who had been in this field looking at smoking behavior and was respected for his views because of the period of time that he had been in the field. Isn't that true?
A. No, I didn't say that at all. What your question was is Dr. Horn recognized as a -- as an expert in smoking behavior, and I said yes. I recognize his name. But I don't think he had working knowledge of addiction as we currently think about or

even as it was thought about in this series.
Other articles written in here by other people have to do with the addictive process and withdrawal symptoms and so on. This was -- this was a meeting where people came together, were invited by NIDA to make presentations. That's what it was. So I don't -- I don't think you can make any more of it than that.
Q. Let me talk about your own personal experience that you shared with the jury in addition to your views as you shared them with the jury. I take it that you recognize that other people -- you --
I think you said that you quit more than 20 years ago?
A. 1975.
Q. Okay.
A. November 2nd.
Q. And you quit more than 20 years ago without any kind of nicotine supplementation?
A. Correct.
Q. And I -- I think you said and your own words were that it was the most difficult thing that you did in your life.
A. I said it was the most difficult I've ever done, that's correct.

Q. Okay. And that hasn't influenced your views as an expert, your own personal experience?
A. I think it allows me to have empathy for people who are struggling with this. Because it's not a simple deal at all, it's very difficult. It allows me to understand. But does that mean that everyone who treats people who are smokers has to be a recovering smoker or former smoker? No. People can understand that without -- without having been a former smoker. But it allows me the ability to understand this in a way that's personal. I think that's okay.
Q. Dr. Horn was a former smoker, too; wasn't he?
A. Well he actually did the same thing I did, he switched to a pipe. I don't know if he continued smoking the pipe. I finally stopped smoking the pipe, but I don't know if he did or not because it doesn't say in his introduction.
Q. And --
A. I imagine that's something we tell our patients, don't do that, don't switch to a pipe or cigar because you're smoking those just like you did your cigarettes.
MR. BERNICK: Move to strike as non-responsive, Your Honor.

THE COURT: I'll let it stand.
BY MR. BERNICK:
Q. Dr. Hurt, certainly you recognize that if other people came in who had quit smoking and took the stand just like yourself and talked about their own experience in smoking, they could be reporting an experience that was very different from your own. Would you acknowledge that?
A. Sure. I mean people who stop smoking stop smoking for difference reasons. Sure. People are difference, sure.
Q. And with a wide range of degrees of difficulty in the process?
A. There is -- there is that. I think I've already said that there is a spectrum of this problem. Some people can stop very easily and they have no difficulty. And I think that's great.
Q. And in fact, have you taken the time --
This is a case that deals with cost recovery for Medicaid recipients. Are you familiar with the testimony that has been offered in this case by individual Medicaid recipients, smokers, and what they have said about whether they quit on their own and the degree of difficulty? Have you familiarized yourself with that part of the record?

A. Have I?
Q. Yes.
A. No, I have not.

Q. So you have no idea whether your own experience as you've reported to this jury is the same as what the record in this case says about the degree of difficulty that has been seen by Medicaid recipients when it comes to quitting; would that be fair?
A. Well all I can tell you is that we see patients who are from all walks of life, they're Medicaid, Medicare, people from all different walks of life that we see as patients. And actually we try not to identify what their potential reimbursement source is when we see them as patients because that's not really fair. We try to treat the patients for what they are, what their problems is, without all the other stuff. We let the business office focus on that sort of stuff and we try to take care of the patients. And the variety of patients we have seen over the years is large, we've seen over 15,000 patients, so we've seen every size, shape and form. But there are still a few surprises. Every week there is another surprise, something we haven't thought about before.
Q. But as you sit here today, you just don't know

what the experience has been of the people who have testified in this case when it comes to quitting; do you?
A. No, I don't have any knowledge of who's testified or -- or what they look like or anything else.
Q. I want to take you back a little bit to the history of quitting.
A. Are you through with this?
Q. Yes, I am. Thank you.
People have thought for a very, very long time in the popular literature, the popular press, about the fact that once you start, it's hard to quit smoking; isn't that true?
A. I think that's been said, but -- in the popular press. We certainly say it in our program. We try to teach our children that. We try to teach them that the best way to stop smoking is never to start. Correct.
Q. And people have known ever since people started using tobacco and tried to stop using tobacco, people have known -- very common-sense proposition -- once you start, it's hard to quit. Would that be correct?
A. I don't think you can generalize that to just all forms of tobacco, because a cigarette is the most

efficient delivery form of nicotine that exists, it's a delivery device for nicotine that achieves levels that are higher than any other form of tobacco. So you can't just lump tobacco together with cigarettes.
Q. Take either one. Isn't it a fact that it's been said for literally centuries, when it comes -- even before cigarettes: Once you start using tobacco, it's hard to stop?

A. It could be. I guess you're -- you probably got something in front of you. If you want me to refer to that, I'd be glad to do that.
Q. Well you gave us a history lesson at the beginning of your direct examination. Is an important part of the history lesson that it's been known literally for centuries that once you start using tobacco, it's hard to stop using tobacco?
A. Once you become dependent upon it, it is difficult, correct.
Q. Okay. And that's been published and known and people have known that as a matter of basic practical knowledge for hundreds and hundreds of years; isn't that right?
A. Well again, it goes back to what we talked about earlier, is the knowledge that's out there, does it reach the consumer? Do they really know for sure?

The knowledge may be published in -- in things, but they -- the people who are on the receiving end may or may not have received that information, one; and two, if they have become dependent, the denial and rationalization is there that does not allow them to internalize that information.
Q. The question I asked you was of the practical wisdom. That's not the scientific publications and the like. The practical wisdom, if you go back into the history texts, as you have talked about the history of tobacco, how it came to be used, how it came over here to the United States, wouldn't we find in those same texts that for hundreds of years it's been practical, common knowledge that once you start using tobacco, it's hard to stop? Isn't that a fact?
A. It has been stated in that way. But again, you're talking about, specifically to deal with cigarettes, the people that begin to use cigarettes --
MR. BERNICK: Your Honor, this is -- this is not responsive. I'm not asking about cigarettes. I said hundreds of years before cigarettes. I'm talking about the history.
THE COURT: Okay. You understand the question?

THE WITNESS: Well I think so.
A. You know, the -- the -- I guess the -- the addictive nature of tobacco has been hinted at for a long time, but remember, the '88 Surgeon General's report was the first Surgeon General's report to talk about nicotine addiction. So difficulty -- difficulty starting once you -- stopping once you start may have been talked about, but it really wasn't really brought to that level of attention until the last part of this century, I mean. So --
Q. I'm not talking about the Surgeon General's report.
A. Pardon?

Q. I'm talking about what the guy in the street says about quitting using tobacco. Long before cigarettes, hundreds of years before cigarettes. You know, I'll put the question one more time.
A. I wasn't here a hundred years ago. I didn't do a survey of people on the street hundreds of years ago. I think if you have something that says that, I'd be glad to look at it.
Q. When you did your history lesson, did you go back and take a look at what people on the street, what has been said as a matter of common knowledge for hundreds of years about the difficulty of

quitting? Did you do that research when you put your history together?
A. There are -- there are statements in the contemporary literature even, and even in some of the literature earlier this century that speak -- say that. Now whether or not that was based on scientific surveys of people on the street -- those things kind of get said. And there are some articles earlier this century that -- that say those sorts of things.
Q. Okay. We can go back and see all kinds of articles --
A. Correct.
Q. -- as a matter of fact over time; correct? They go back to the first part of the 1600s; don't they?
A. On what?
Q. Once you start using tobacco, it's hard to stop. Can't we find references to tobacco's addictive? Can we find those references in the public literature and the newspaper articles and press statements going back for hundreds of years?
MR. CIRESI: Objection, Your Honor, with respect to the compound nature of the question.
THE COURT: It is a compound question.
BY MR. BERNICK:

Q. Well let me -- let me take you to Mark Twain. Wasn't it Mark Twain that said to stop smoking was the easiest thing he ever did; he hastened to add that he ought to know because he had done it a thousand times?
A. I think that's a quote from Mark Twain, sure.
Q. It's not only a quote from Mark Twain, it's also a quote from Mark Twain that appears in the -- in articles that have been published by people at the Mayo Clinic; correct?
A. I don't know. You obviously have it in front of you, so --
Q. Are you familiar with what the Mayo Clinic has said over time in its own proceedings about the difficulty of quitting smoking?
A. There have been articles, sure.
Q. Let's put the Mayo Clinic on the map here. Isn't it true that -- let's just go back to the

1940s -- that in the early 1940s the Mayo Clinic was publishing papers on the drug properties of nicotine in cigarette smoke?
A. There have been several articles written, but I -- you know, the Mayo Clinic doesn't write articles, people at the Mayo Clinic write articles. So if you've got a reference, I'd be glad to look at

it.
Q. Well do you know an article by Grace Roth -- Does the name Grace Roth ring a bell?
A. It does, but I couldn't put it in context.
Q. Are you familiar with Grace Roth's article in 1944 published in the Journal of the American Medical Association on the effects of smoking cigarettes, and particularly the effects of nicotine?
A. I may have seen that, but I couldn't -- I couldn't tell you the content of the article.
Q. Could you take a look at GK69, which is at volume two, tab 48a.
A. Which volume is it?
Q. I'm sorry, volume two, tab 48a.
MR. CIRESI: That's not designated, counsel.
MR. BERNICK: I believe it was.
MR. CIRESI: Well it wasn't. GK69 has not been designated.
MR. BERNICK: Oh, I'm sorry, 200069. Sorry.
MR. CIRESI: Thank you.
BY MR. BERNICK:
Q. Do you see that, Dr. Hurt, is an article that was published in the Journal of the American Medical

Association by Grace Roth in 1944?
A. Yes, it is.
Q. Do you see that at that time she was with the Mayo Clinic?
A. It says from the Section of Clinical Physiology, Mayo Clinic, Dr. Roth. Yes.
Q. Okay.
MR. BERNICK: We would offer it, Your Honor, on two grounds, one, it's a learned treatise, and the other, it's an ancient document. It is also -- we're offering it for the fact of what was being said within the state of Minnesota at that time.
MR. CIRESI: It can only be offered under a learned treatise. Foundation has to be laid for that, Your Honor.
THE COURT: Have you read the article, doctor?
THE WITNESS: Well if I have, it's been a long -- I don't -- I don't recall reading it, but I -- I could have, but it's been a long time.
Q. Did you make any -- When you came in to talk about nicotine and

addiction, did you make any effort to find out what research had been published by the Mayo Clinic on

that subject going back over the years?
A. I made an effort to look at a lot of things. This one may or may not have been in the stack that I did. I honestly cannot recall.
If you can imagine the number of articles that are produced at Mayo Clinic on an annual basis, there are a large number and they're not necessarily catalogued. So this one, I -- if I've seen it, it's been a long time.
Q. Take a look.
A. Okay.
I've got the general gist of what they did, yes.
Q. Okay. This was in fact an article published on the effects of nicotine; correct?
A. It was the effect of smoking.
Q. And the intravenous administration of nicotine.
A. I guess I haven't gotten to that part yet.
Q. It's right in the title.
A. Okay. Yeah.
Q. Okay? And -- and do you see that on the second page --
Well let me just ask: Was it published in a peer-review journal; correct?
A. It is.
Q. And published by a person who was a scientist

then at the Mayo Clinic; correct?
A. It was a person at the Mayo Clinic, yes.
MR. BERNICK: Okay. Your Honor, we would offer this again --
Q. The date of the article is 1944?
A. July 15, 1944.
MR. BERNICK: Again, we would offer this on all three grounds, as a learned treatise, it establishes the fact of what was being said within the state of Minnesota at the time concluded by the Mayo Clinic, and it's also an ancient document, more than 20 years old.
MR. CIRESI: It's irrelevant under an ancient document. It's a medical treatise. If the foundation is laid, it can be introduced under 803(18). And the last statement is no exception to the hearsay rule.
THE COURT: It will be received under 803.
BY MR. BERNICK:
Q. If you take a look at the -- at page 762 --
Well first of all, let's take a look at the title page.
Q. Journal of the American Medical Association, July 1944 -- make everybody dizzy here for a second -- "The Effect of Smoking Cigarettes and the

Intravenous Administration of Nicotine," and you see Grace Roth, Ph.D., is the lead author; correct?
A. Correct.
Q. And as you've indicated down here, it says from the section on Clinical Physiology, Mayo Clinic, Dr. Roth; right?
A. Correct.
Q. And you see that Dr. Roth is doing the study, and as part of the study she goes back and takes a look at the literature on nicotine, and she recites Johnston.
Now Johnston was the same author of the same article that we've already talked to the jury about. He was the author in 1942 who said smoking is basically the self-administration of nicotine and smokers are addicts; correct? Remember that article?
A. I remember that article, yeah.
Q. Okay. And she's picking up on that same article and saying "Johnston in England added to the nicotine hypothesis by assuming that the smoking of tobacco is essentially a means of administering nicotine. He gave nicotine both hypodermically and intravenously and obtained a vasoconstrictor effect similar to that of smoking tobacco." Do you see that?
A. Uh-huh.

Q. And again, that's the article that talks about smokers being addicts; true?
A. Smokers being addicts, I think that's what he said, but I'd have to go back and look.
Q. Well that's Exhibit 226, which is already in evidence -- that's GK226 already in evidence. That's the one that says, just right here, --
A. Right.
Q. -- "Smokers show the same attitude to tobacco as addicts to their drug, and their judgment is therefore biased giving an opinion of its effect on them." That's denial?
A. No, that's not denial.
Q. That's not denial.
A. No.
Q. "Yet abstinence generally followed by improved health." Do you see that? That's Johnston; right?
A. That's Johnston.
Q. Okay. And she's picking up Johnston and doing her own research, right, in 1940?
A. Right.
Q. In fact, during the same period of time, is it also true that even outside the medical literature --
Well let's pick up one other Mayo Clinic study. The Mayo Clinic didn't just look at this in 1940, the

Mayo Clinic continued to focus on smoking and the difficulty of quitting in succeeding years; did it not?
A. Again, there are different articles -- authors

at the Mayo Clinic, so if you've got one like this one, we can talk about it.
Q. Well in fact you specifically cite in your report a publication on the psycological aspects of smoking by a Dr. Barry of Mayo Clinic in 1960; do you not?
A. Dr. Maury Barry, yes.
Q. Okay. And he published a paper that you cite. Take a look at volume two, tab 48.
A. Before we do this, just for my own clarification, the Johnston article, when was that published?
Q. 1942, Dr. Hurt.
A. Okay. Thank you.
So what's the other one?
Q. GK200001, it's volume two, tab 48.
A. Thank you.
Q. Is that the --
That's the Barry study?
A. Yes. Dr. Barry was a psychiatrist.
Q. And then -- I'm sorry. Is that a paper that you

cited and relied on in your report?
A. It was part of what I reviewed and it's important for a lot of different reasons, personal importance. He died of lung cancer.
Q. Did you cite it in your report, Dr. Hurt?
A. I did, yes.
MR. BERNICK: Okay, we'll offer it, Your Honor.
MR. CIRESI: No objection under 803(18), Your Honor.
THE COURT: Court will receive GK20001.
BY MR. BERNICK:
Q. This was published in the Proceedings of the Mayo -- of the staff meetings of the Mayo Clinic; was it not?
A. Yes, it was.
Q. 1960?
A. Correct.
Q. And Dr. Barry talks about the psychologic aspects of smoking; does he not?
A. Yes, he does.
Q. And in particular he says "The heavy smoker continues his habit because of two factors: A pharmacodynamic or physiologic addiction with which I shall deal very briefly, and a complex of unconscious

psychodynamic factors upon which I shall speculate at slightly greater length.
"Clinical experimental data indicate that a definite physiologic addiction to nicotine exists. Johnston gave nicotine hypodermically to volunteers who were both smokers and non-smokers."
So again, Dr. Johnston's 1942 paper and his 1942 theory that people are addicted and they smoke for nicotine, Johnston's paper comes up again, now, in

1960 in Dr. Barry's publication; does it not?
A. Yes, it's cited again. But again, that's --
Q. That's a very --
A. -- one article.
Q. I see. I just asked you whether he cited it in the paper. Did he not?
MR. CIRESI: Excuse me, can the witness finish, Your Honor?
THE COURT: Allow the witness to finish his answer, counsel.
A. The fact that one article is cited in two papers means that one article was present in the literature that they both made reference to. And that's part of the point, is that there weren't a lot of references to addiction.
Q. Well we'll -- we'll see now. Let's talk about

what the state was doing back --
I mean there's no issue, is there, Dr. Hurt, but that during this period of time in the 1940s, 1950s, we'll see more in the 1960s, the scientific literature contained references, people were writing down the theories saying smokers smoke for nicotine, it's addictive. That was no secret to the scientific community. Was it?
Just that fact, smokers smoke for nicotine, it's addictive, was no secret to the scientific community during this period of time; isn't that true?
A. To some within the scientific community that were studying it. But, more importantly, the consumers never heard it.
MR. BERNICK: Your Honor --
A. In fact, your companies deny and they still deny today that it's addicting.
MR. BERNICK: Your Honor, I move to strike the statement by the witness.
THE COURT: Well the answer will stand.
BY MR. BERNICK:
Q. Let's talk about what the schools within the state of Minnesota were doing during this same period of time.
Have you taken a look at what the state was

teaching in its own textbooks in 1944 and in the 1950s, teaching in its own textbooks about nicotine and addiction? Have you looked at that?
MR. CIRESI: Objection, relevance.
THE COURT: No, you may answer if you know.
A. I did not.
Q. I want you to take a look at tab -- or volume one, tab four. That's Exhibit BYB249.
MR. CIRESI: May I have that again, please?
MR. BERNICK: I'm sorry. It's BYB000249.
A. Okay.
Q. Are you with me there?
A. I am.
Q. Good.

A. "Individual and Community Health: Efficiency for Living;" is it that.
Q. That's correct. And down at the bottom you see "State of Minnesota, Department of Education, September 1944?"
A. Uh-huh.
MR. BERNICK: Your Honor, we would offer this document. It is a statement by the plaintiff in the case through the Department of Education, produced by the plaintiff in this case, and it's further an ancient document.

MR. CIRESI: No objection on those grounds. But there's no foundation for use of this, Your Honor, and it's outside the scope of this witness.
THE COURT: Okay. It will be allowed into evidence, BYB000249.
BY MR. BERNICK:
Q. Do you see, Dr. Hurt, where this is described as being -- well let's take a look at the title page which you just read, this is "Individual and Community Health: Efficiency for Living," and we were just reading from down at the bottom where it says "State of Minnesota, Department of Education, September 1944;" is that right?
A. Yes.
Q. Okay. And the first page at the top says "A course of study in health education for the senior high school." Is that right?
A. That's what it says.
Q. Okay. And if you want to flip to page 80 -- do you have 80 down at the bottom, eight zero?
A. Well I've got a table of contents that goes from page two to page 119, and I've got one page that says 79 and 80. Is that it?
Q. Yes.
MR. CIRESI: Your Honor, I didn't realize

he didn't have the full exhibit. We're going to object to the incompleteness of the document.
THE COURT: Is that incomplete, counsel?
MR. BERNICK: Let me check on that. Do we have the complete exhibit?
Your Honor, all that we have to display to the witness is this excerpt. It was a document produced by the state, and we will supply all of the other pages and make it part of that same exhibit. That's -- it's an error on our part.
MR. CIRESI: Well the fact that it was supplied by the state -- there's millions of documents in this litigation. We need the entire exhibit so that we see it's being used in context.
THE COURT: Does the state have a copy of the entire exhibit?
MR. CIRESI: Well not here, Your Honor.
MR. BERNICK: We can -- we'll just substitute --

THE COURT: Could we continue this until we get a copy of the entire exhibit?
MR. BERNICK: Well I guess it's pretty important --
I'll tell you what, we can supply the full copy of the exhibit after the noon hour, and I can pursue

a couple questions with the witness without getting into the text of the document, and we'll pick it up at that time.
THE COURT: All right.
MR. BERNICK: I apologize for the omission. We just have what we were going to display here.
BY MR. BERNICK:
Q. Dr. Hurt, have you gone back -- when you made the statement that you made about what the consumer knew back in the '40s and in the '50s, have you gone back to see what it is that the state of Minnesota was telling students through textbooks and through course work, telling students during this period of time about nicotine addiction? Have you gone ahead and done that?
A. No, I have not.
Q. Have you taken a look at popular press publications during the '40s, '50s and '60s to see what the popular press was saying to the people on the street in the state of Minnesota about nicotine and addiction? Have you done that?
A. I've seen some reports, but I haven't done a systematic review of all the newspaper articles and all of those things. No, I have not done that.
Q. When you formed your history about tobacco use

in the United States, did you go back and take a look to see what had been said by the states when cigarettes were prohibited for a period of time, including in Minnesota in the early 1900s, did you go back and see what was being said to the people on the street about addiction at that time?
A. I recall some of those references, but I -- I did not go back and look at all of them, no.
Q. Okay. Were you familiar with the fact that when cigarettes were prohibited in the state of Minnesota, prohibited to everybody, everybody on the -- nobody on the street could have them, that the articles were coming out and saying people are going to get their cigarettes anyhow by going across state lines because they're addicted? Did you familiarize yourself with those publications?
MR. CIRESI: Objection. Objection to the form of the question, Your Honor.
THE COURT: Sustained.
MR. CIRESI: Counsel is --
BY MR. BERNICK:
Q. You've told us a lot about what people -- what was not in the public scientific literature but what was in the public domain. Did you go back and take a

look to what the newspaper articles were saying about

addiction in the early part of this century right here in Minnesota?
MR. CIRESI: Objection, asked and answered.
THE COURT: Do you understand that question?
THE WITNESS: Uh-huh.
THE COURT: You may answer.
A. No, I -- I recall some, but I did not go back and take a look at all of the newspaper articles back at the first part of the century. No, I didn't.
Q. Are you here to tell this jury that people -- well let me put it this way: If we go back and -- we go forward a little bit, now, into the early 1960s, isn't it true that further publications came out in the early 1960s about nicotine and addiction?
A. That could be. I'm sure you have something there. If you'll show it to me, I can tell you if I've seen it before.
Q. Okay. Well let me ask you this: People here in the United States have heard about the Surgeon General's reports. We've had reference to them in this trial. Isn't it a fact that in England there was a report that came out in 1962 by the Royal College of Physicians?
A. I've read that report. I've seen it. I've

read -- read parts of it, yes.
Q. Yes. And that report came out in 1962; did it not?
A. I think there were more than one report from the Royal College of Physicians, but there was -- in '62 there was one.
Q. Right. And in fact it was part that report in 1962 that prompted the formation of the advisory committee that ultimately wrote the 1964 Surgeon General's report in this country; correct?
A. I -- it could have. I'd have to go back and look at the beginning of the '64 report to see what the origins -- all the origins --
There were a lot of origins to the '64 report. If that was one of them -- it could have been.
Q. Was it --
Isn't it true that when the Royal College of Physicians came out with their report in 1962, that they referred to smoking as addictive or as an addictive habit or as a habit, all three?
A. I mean I'd have to go back and refresh my memory as to the Royal College of Physicians report. They could have done one or all of those. I -- you must have it in front of you or else we wouldn't be talking about it like this, so if you want to talk

about it, let me look at it and I'll tell you what I think of it.
Q. Okay. Well let me talk about one that I know you referred to in your report and ask you a couple questions about it, and that is research funded by the tobacco industry.
Isn't it true that there was research -- published research funded by the tobacco industry right here in 1963 which said cigarette smoking can be addictive?
MR. CIRESI: Your Honor, I'm going to object to the form of the question. Counsel's testifying.
THE COURT: You may answer that.
A. Well I mean it could have. I cannot remember every article. You give me a citation of 1963 funded by the tobacco companies and it says it's addictive. I -- I don't have that kind of recall that I can just --
So if you've got it in front of you, why don't you just let me look at it with you? Then we can talk about it.
Q. I will. Remember the Knapp report? The only reason I say that is it's referred to in your own report. Does that ring a bell?

A. I understand.
Q. Okay. Why don't we take a look at the Knapp study, volume one, tab 6-A, that's GE828.
A. Okay.
Yes, this is the one I reviewed for my report.
Q. I'm sorry?
A. This is the one I reviewed for my report.
Q. It is or it is not? I couldn't hear.
A. It is.
Q. It is.
A. Uh-huh.
Q. Okay. As published in the American Journal of Psychiatry?
A. Correct.
Q. Okay. And that's a peer-reviewed journal?
A. That is.
Q. Okay. And again, you referred to it in your report.
MR. BERNICK: We would offer this into evidence both as a learned treatise and also as an ancient document. It was published in 1963.
MR. CIRESI: As an ancient document it's inappropriate. Under 803(18) we have no objection.
THE COURT: It will be received under 803.
BY MR. BERNICK:

Q. American Journal of Psychiatry, January 1963; right?
A. That's correct, yes.
Q. Okay.
A. Right.

Q. Do you see that the title of it is the "Addictive Aspects in Heavy Cigarette Smoking" by Peter Knapp?
A. That's correct.
Q. And it says further down here, "Nicotine is an active agent, but not necessarily the only noxious agent in tobacco; it appears to have certain addictive qualities."
Does the article then go on to talk about different kind of smokers, and then concludes in the summary and conclusions section, "Heavy cigarette smokers thus appear to be true addicts, showing not only social habituation but mild physiologic withdrawal." Do you see that?
A. I believe I do, but I --
Which page are you on?
Q. That is page --
A. Oh, it's at the very beginning.
Q. -- 971.
A. I have it. Correct.

Q. All right. And not only does it say that, but the -- if you take a look at the references, it turns out that Dr. Knapp, like the people at the Mayo Clinic, are very familiar with the Johnston publication in 1942 dealing with smoking is an addiction, and Dr. Roth from the Mayo Clinic, her publication on tobacco and the effects of smoking.
A. Uh-huh.
Q. And not just one, but two. And Dr. Knapp also is citing work by Dr. Silvette in 1962 in Pharmacological Review.
Again, Dr. Silvette and Dr. Larson over here, those are studies that were funded by -- those were publications that were funded by the tobacco industry; were they not?
A. I think that's correct.
Q. And if we take a look at this particular publication; that is, Dr. Knapp's publication on the addictive aspects of smoking, this particular research was actually sponsored by both the American Cancer Society and by the Tobacco Industry Research Committee; correct?
A. That's what it says. But it's -- it's -- you have the title wrong, it's "Addictive Aspects in Heavy Cigarette Smoking," not just "Cigarette

Smoking," so they really focused on heavy smokers as --
In fact, their discussion leads off with "This study dealt with heavy smokers who may well form a special group or at least occupy a special position in relation to smokers." So it's heavy smokers.
Q. My question was: Was this work funded by the American Cancer Society and the Tobacco Industry Research Committee?
A. That's what it says, right.

Q. Would it be fair to say that there were a number of scientists who were focused on the role of nicotine in published form, the role of nicotine and whether it was a habit or an addiction at this time?
A. I don't know what the right number is. There were some that were doing that, yes.
Q. Well it was sufficiently important to the Surgeon General in 1964 to cite -- to specifically address this issue in 1964; correct?
A. There is a section on -- on addiction, yes.
Q. So now at this point --
And the '64 report takes on this issue as an issue; that is, is it a habit or is it an addiction. Right?
A. That was the way it was displayed. They

discussed it, and that's part of the report, yes. Just like the report also addresses did it cause lung cancer.
Q. Did it cause lung cancer.
A. And they concluded that it did.
Q. Well that isn't exactly what the report --
Is the Surgeon General's 1964 report in evidence?
MR. BERNICK: All right, we would offer, Your Honor, Exhibit GK3, which is the Surgeon General's report 1964. And I think that we may have an agreement between the parties that, subject to our disclosure requirements with regard to a given witness, that the Surgeon General reports can be admitted into evidence. I don't know if that's correct, Mr. Ciresi.
MR. CIRESI: That is correct, Your Honor.
THE COURT: Okay. Court will receive GK3.
MR. BERNICK: Okay. Do we have the '64 report, the book?
May I approach the witness, Your Honor?
BY MR. BERNICK:
Q. I want to show you --
We made a full copy and broke it down by chapters.

A. Okay.
Q. And chapter 13 relates to smoking.
Does chapter 13 of the Surgeon General's report in '64 talk about smoking behavior?
A. Well it's title is "Characterization of the Tobacco Habit and Beneficial Effects of Tobacco." That's 13.
Q. And do you see that at page 350, the Surgeon General report decides to make a distinction between drug addiction and drug habituation?
A. Yes, on the --
Q. Okay.
A. On 30, yes.
Q. And I don't -- I want to just capture a little bit above this. "In the recitation "-- we'll put

down here habit and addiction. "In the recitation, the evidence indicates dependence is psychogenic in origin. In medical and scientific terminology the practice should be labeled habituation to distinguish it clearly from addiction, so that the biological effects of tobacco, like coffee and other caffeine-containing beverages, betel morsel chewing and the like, are not comparable to those produced by morphine, alcohol, barbiturates, and many other potent addicting drugs." Do you see that statement?

A. Yes, I do.
Q. Okay. So at this point in time, at least, the Surgeon General is kind of developing through these two terms the ability to group different substances that would today be considered dependence-producing substances, to put them into two different groups at this point in time; correct?
A. I don't think they did that at all. In fact, you have to read the next sentence, "In fact, to make this distinction, the World Health Organization Expert Committee on Drugs Liable to Produce Addiction created the following definitions which are accepted throughout the world," and this is really the key part, "as the basis for control of potentially dangerous drugs."
Q. Fine.
A. So this really is the World Health Organization definition.
Q. Okay, fine. The World Health Organization definition in 1967, correct, the then-current definition.
A. That is the one until later in 1964 that said that nicotine was dependence producing.
Q. We're going to get to it in good, Dr. Hurt.
A. Okay. Yes.

Q. Under habit, the '64 report groups tobacco, coffee or caffeine -- coffee which contains caffeine, and the betel morsel. That's chew --
A. That's the beetle nut.
Q. Oh. Is that right?
A. Uh-huh. And actually it is hallucinogenic.
Q. Right.
A. And I don't think they classify it the same way today.
MR. BERNICK: Your Honor, I move to strike the statement. We're going to get to today in a minute; I'd just like to be able to go through the '64 report.
THE COURT: I'll let it stand.
Q. And over here we've got morphine, alcohol -- alcohol, and barbiturates; right? That's what that paragraph says; right?
A. That's what it says.
Q. Okay. And on the next page, the report sets out definitions or really criteria for distinguishing

drug addiction from drug habituation; right?
A. Correct.
Q. And then goes on to say, when it comes to tobacco, that it should be characterized as habituation; right?

A. That's what it says.
Q. But at the same time it goes on to say, "Correctly designating the chronic use of tobacco as habituation rather than addiction carries with it no implication that the habit may be broken easily."
The Surgeon General wanted to take care that that was not the message that was being sent; is that fair?
A. Correct. As long as it is generally accepted, because that's really an important sentence. It says "It is generally accepted among psychiatrists that addiction to potent drugs is based upon serious personality defects from underlying psychologic or psychiatric disorders that may become manifest in other ways as the drug is removed." That may have been the conventional wisdom in 1964, but that isn't the current wisdom today.
MR. BERNICK: Your Honor, I move to strike. If I'm going to be able to conduct cross-examine, I'd like to have answers that are focused at least on the same question that I ask about.
THE COURT: Well it is in the same paragraph, so I believe it's fair. I'll let it stand.
BY MR. BERNICK:

Q. There was a whole committee as part of the Surgeon General's committee that was dedicated to writing this chapter; correct?
A. There was a committee, yes.
Q. Okay. And they got their heads together to figure out what they wanted to do. They came out with this as their conclusion at that time; correct?
A. The committee actually was formed by people from different organizations recommending people to be on the committee, so they didn't just kind of get together. People from the American Cancer Society, the Lung Association, the tobacco industry could designate members to the committee. And in addition, each member -- as a suggested member for the committee, each member organization had veto power over any person that might be suggested by someone else. So they didn't just kind of get their heads together; it was a very well-organized and -orchestrated sort of event.
Q. Fine. I'll accept that.
And they came out with their conclusion at that time that said, after all this discussion, we're going to call it in 1964 not an addiction, but a habit; right?
A. That's what they said.

Q. Okay. And that was soon to change, as you've already pointed out. After 1964 the issue of whether -- of what to call smoking, whether to call it an addiction, whether to call it dependence, that issue continued to evolve as time went on after the Surgeon General's report; correct?
A. That's correct.
Q. Indeed, right after the Surgeon General's report, as you've already pointed out, the WHO organization decided to abandon the distinction between habit and addiction and instead talk about dependence; right?
A. And the reasons were --
Q. Did they do that, Dr. Hurt?
A. They did.
Q. Okay. And as time went on, dependence became a term that was used by other organizations as well, including the APA in the Diagnostic and -- the DSM publication; correct?
A. Yes, the Diagnostic and Statistical Manual, that's correct.
Q. Okay. Now you've talked about DSM IV. That was issued in 1990; true?
A. I think that's right. Okay. And there were -- so it's the fourth -- actually it's probably the

fifth one.
Q. Right. There was DSM III, there's the DSM IVA and then DSM V?
A. And I and II.
Q. And obviously I and II. And isn't it true that in 1974, is it, in 1976 -- sometime in the 1970s, DSM adopted dependence language and dependence criteria; correct?
A. I can't remember the exact date. That sounds about right.
Q. By 1980 DSM was specifically talking about nicotine dependence.
A. Uh-huh.
Q. Right?
A. Yes. Yes.
Q. Surgeon General comes along in 1988 and says we now want to say that cigarette smoking is addictive. That was the conclusion of that report; right? '88 Surgeon General's report.
A. That nicotine is addictive, yes.
Q. Okay. And then when the APA came along with DSM IV in 1990, they used the word dependence.
A. Correct.
Q. And you've told us that even though the label is different, they're basically interchangeable.

A. They are.

Q. They are.
Now is it also true that after all of these different labels and different pronouncements, that the criteria or the definitions for addiction have changed in the minds of the scientific community since 1964?
A. Science is not static. I mean when you learn more things you have to adapt to science moving forward. So as we learn more about these things, definitions change, test names change, a lot of things change.
Q. Right.
A. So that's -- so -- so it's not static. It didn't stay like it was in '42 or --
So this is the current operational definition that we operate under.
Q. Right. If we use the current operational definition that is accepted by the scientific and medical community today, smoking is addictive, or call it dependence -- a dependence-producing substance; true?
A. Nicotine is.
Q. Nicotine --
A. And nicotine --

Q. -- is dependence-producing.
A. If you take nicotine out of cigarettes, they wouldn't be addictive.
Q. Okay. Now isn't it also true that as the definitions have changed and science has come along, if we went back to some of these other materials -- oops.
Let's take caffeine. Isn't it true today that under the current definitions of dependence and even addiction, that caffeine -- I don't even know if I'm spelling that right -- caffeine is a substance of dependence in some people?
A. Not according to the DSM IV. And that's -- that's really --
In fact, they have a subset of that on caffeine intoxication. But as far as the World Health Organization or the AMA, APA, classifying caffeine as an addictive substance, that's not done.
Some of the criteria that are used for substance dependence people with -- that are users of caffeine have. But, you know, I don't -- I don't know --
Q. Dr. Hurt --
A. I don't know anybody that drinks coffee, I don't --
Certainly doesn't kill anybody. Certainly

doesn't kill 400,000 people a year. So on orders of magnitude, we're talking about something that's not even on the same page.
MR. BERNICK: Your Honor, I move to strike as being non-responsive. I asked a very specific question.

THE COURT: Okay. It is non-responsive.
MR. BERNICK: Sorry?
THE COURT: It is non-responsive.
MR. BERNICK: Okay.
BY MR. BERNICK:
Q. Are you familiar with the publications of Dr. Benowitz and Dr. Henningfield and Dr. Hughes on the subject of whether caffeine is a substance of dependence and addiction?
A. I'm familiar with a lot of their articles. There has been a fair amount written about this, actually.
Q. Okay.
A. But I'd have to look at which ones you're talking about.
Q. We keep on talking about these names, Dr. Benowitz, Dr. Henningfield. And Dr. Hughes we haven't talked about as much. Is it fair to say that Benowitz and Henningfied are probably some of the

best-known and most highly regarded scientists and doctors today in the field of nicotine dependence?
A. They're well recognized, yes.
Q. Indeed, they are some of the principal authors of the 1988 Surgeon General's report; correct?
A. They were -- they were two of the most -- most influential ones that did the most, yes. They were very much involved.
Q. And isn't it true that they have written specifically with regard to the addictive nature of caffeine?
A. They've written about that. I think that all three of them have articles about that.
Q. Okay. And isn't the position that is taken by Dr. Benowitz, Dr. Henningfield --
MR. CIRESI: Objection. Objection. Counsel is testifying. The form of the question is inappropriate.
THE COURT: Well I haven't heard the question so it's hard for me to rule.
BY MR. BERNICK:
Q. Isn't it the view of Dr. Benowitz, Dr. Henningfield and Dr. Hughes, all of them, that caffeine is a substance of dependence and addiction?
MR. CIRESI: Same objection, Your Honor.

THE COURT: You may answer that.
A. I'd have to see the articles you're talking about. They write a lot of articles. So let's just turn to one.
Q. Okay.
A. I mean that -- which page?
Q. I'm sorry, take -- take a look at tab -- or volume two, tab 42, Exhibit GK100225.
A. Which volume?
Q. Volume two, tab 42.
A. Just a moment.

Q. Okay. And it's GK --
MR. BERNICK: Mike, it's GK100225.
A. Okay. If I've seen this, it's been a while, but it's from the Annual Review of Medicine.
Q. Peer-reviewed journal?
A. I've never had anything published there. I've never reviewed any of the articles there. I don't know if it's quite the same as a peer-reviewed journal or not. I think it may be more requested articles submitted. But that's okay. I don't -- I don't know for certain it's a peer-reviewed journal, Annual -- Annual -- Annual Review of Medicine. Could be.
Q. Okay. And Dr. Benowitz obviously is an

authority in his field; correct?
A. Yes, that's correct.
Q. And just take a look --
This article on the clinical pharmacology of caffeine, would this article be recognized, insofar as who the author is and the subject matter, would this author -- would this article be recognized as a reliable authority in the field of those practicing or dealing with nicotine dependence and addiction and caffeine dependence and addiction?
A. Yeah, he's -- he's an authority, yes.
Q. Okay.
MR. BERNICK: Well we would offer it as a learned treatise, Your Honor.
MR. CIRESI: Objection on relevance. No objection on learned treatise.
THE COURT: Okay. It will be allowed into evidence then.
BY MR. BERNICK:
Q. It's a rather extensive article on -- on the clinical pharmacology of caffeine; is it not?
A. Yes. That's what it says.
Q. And in fact it goes on for quite some time talking about the different properties -- different pharmacological effects of caffeine; right?

A. That's correct.
Q. And in the course of the article it considers issues such as physical dependence. "Abstinence from a drug such as caffeine has produced a high degree of tolerance" --
Tolerance is one of the criteria for dependence and addiction; is it not?
A. That's correct.
Q. -- "commonly results in withdrawal symptoms" --
That's another criteria for dependence and addiction; is it not?
A. Yes, it is.
Q. -- "referred to as physical dependence. Withdrawal symptoms after prolonged consumption of caffeine include headache and fatigue most commonly

with anxiety, impaired psychomotor performance, nausea, vomiting, and an intense desire for coffee a less common feature. Withdrawal symptoms typically begin at 12-24 hours and peak at 20 hours. Relief of withdrawal symptoms appears to be a substantial component of the satisfaction of coffee drinking, particularly the first cup of the day." Do you see that statement?
A. Uh-huh, yes.

Q. And the overall introduction provides an overview. It says, "Caffeine is the most widely consumed stimulant drug in the world. This article reviews the human pharmacology of caffeine".
Is caffeine a substance that has drug effects, Dr. Hurt?
A. Yes. Yes, it is.
Q. Okay. And drinking a cup of coffee gives you a dose of a drug with pharmacological effects; true?
A. As long as it's caffeinated coffee, yes.
Q. And only if it's caffeinated coffee.
And caffeine is also in soft drinks; is it not?
A. Yes, it is.
Q. Okay. And what that article is saying is that there is also some evidence that caffeine produces some of the other tests or indicia for dependence: tolerance, which means you get used to more and more.
A. Right.
Q. And withdrawal, which is when you stop it or abstain, you have symptoms that will result; correct?
A. Correct.
Q. It then it goes on to say, "Mankind's most popular drug." And it goes on to say, "Widespread caffeine use is of interest in that it reflects the propensity of people to use stimulant drugs with the

attendant addiction liability;" that is, the risk of becoming addictive. Right?
A. That's what addictive liability is, yes.
Q. "And it may contribute to human disease;" is that what it says?
A. That's what it says.
Q. Okay. Now isn't it also true that Dr. Benowitz in expressing his view actually has petioned the FDA to perform a review of caffeine because of its addictive properties and determine whether further regulatory steps should be taken with regard to caffeine and soft drinks, particularly because soft drinks are consumed by kids?
MR. CIRESI: Objection, relevance, Your Honor.
THE COURT: Sustained.
MR. BERNICK: I believe -- I'm sorry? I'm sorry, Your Honor, I didn't -- I didn't hear.
THE COURT: Sustained.
BY MR. BERNICK:
Q. Are you familiar with Dr. Henningfield's views

on this same subject?
A. I've seen some things that Dr. Henningfield has written, yes.
Q. Is basically Dr. Henningfield taking the same

position as Dr. Benowitz; that is, that caffeine is an addictive substance?
A. I --
MR. CIRESI: Excuse me. Objection, Your Honor, relevance.
THE COURT: I think we've pretty well covered that area. Let's move on.
MR. BERNICK: This would be a good time to break, Your Honor, if it's convenient for the court. I'm more than happy to go on for a while, but I'm at a break.
THE COURT: Let's recess for lunch. We'll reconvene at 1:40.
THE CLERK: Court stands in recess to reconvene at 1:40.
(Recess taken.)

AFTERNOON SESSION.
THE CLERK: All rise. Court is again in session.
Please be seated.
(Discussion off the record.)
THE CLERK: All rise. Court is again in session.
(Jury enters the courtroom.)
THE CLERK: Please be seated.
BY MR. BERNICK:
Q. Good afternoon.
I want to get back to a couple clean-up questions on the design of cigarettes and a question I asked you about regarding low delivery cigarettes, Dr. Hurt.
Remember we talked about the advertisements, then we talked about what science says today about compensation -- this is all pertaining to low delivery cigarettes -- and then finally I asked you what science has said about whether -- what "low delivery" means to the smoker in terms of risk, whether there was a reduced risk from lower delivery cigarettes. And I think you told me -- we talked about the epidemiological studies. I wanted to focus on another source of information for just a moment,

and that is the Surgeon General of the United States.
Are you familiar with what the Surgeon General of the United States has said about whether lower -- lower delivery cigarettes carry with them a reduced risk of lung cancer?
A. I -- I need to see the documents you're talking about, so --
Q. Okay. If you could turn to -- this would be Exhibit JG -- or GJ114, --
A. Do you have a volume number?
Q. -- which is the '81 Surgeon General's report.
I guess it's in CG237.
MR. BERNICK: Is that right, Michele?
Q. Okay. And turn to page 18.
A. I just need to know where to look. What volume?
Q. I'll just give it to you.
Recognize that as the '81 Surgeon General's report? If you turn to page 18, --
A. Okay.
Q. -- do you see where it makes statements regarding cancer and lower tar cigarettes, paragraph one? Do you see the paragraph?
A. I see that, yeah.
Q. Okay. And again, this is 1981. Deliveries in cigarettes -- tar deliveries in cigarettes have been

coming down really since about the early 1950s; is that accurate?
A. Something like that.
Q. Yes. And it was at that time that they first had widespread usage of filters that were being added onto the ends of cigarettes; right?
A. Right. That was the first health-reassurance sort of product, was to add filters to the unfiltered cigarettes.
Q. Okay. So we're now kind of almost 20 years later, and the Surgeon General says, "Today's filter-tipped, lower tar and nicotine cigarettes produce lower rates of lung cancer than do their higher tar and nicotine predecessors. Nevertheless, smokers of lower tar and nicotine cigarettes have a much higher lung cancer incidence and mortality than do non-smokers." Do you see that statement?
A. I see it, yes.
Q. Okay. And further on, if you -- if you deal -- if you go down to paragraph seven, "Even those who do not develop cancer, histologic changes in the tracheobronchial tree are more advanced at autopsy in smokers of cigarettes with higher tar and nicotine than among smokers of cigarettes with lower yields." Correct?

A. That's what it says.
Q. And then finally when you get to the tar content

of smoke condensate, "The tar content of smoke condensate in many of today's cigarettes is less tumorigenic to mouse skin than that of cigarettes of 30 years ago. Levels of the known carcinogen benz(a)pyrene are lower in the smoke of today's cigarettes than in that of cigarettes of 30 years ago. Flavor additives used in lower tar and nicotine cigarettes produce traces of mutagenic compounds."

Were those the basic statements of the Surgeon General in 1981 regarding whether lower delivery products in fact do produce lower risk, Dr. Hurt?

A. Well those are some of the statements. You know, this is a whole --

This is a big report, even though it's not quite as long as the other ones. That's what it says. Those are in the summary, I think. Yes, it goes back to the other -- page 16, which talks about the summaries of the pharmacology and toxicology, cancer, cardiovascular disease, chronic obstructive lung disease, pregnancy and so on. So these are the summary statements from that.

Q. Okay. Now I wanted to ask you a little bit about something else you said concerning low delivery

cigarettes. I'll talk now about these three items. I want to pick up something else you said about low delivery cigarettes and what your patiets you thought believed, which is that some change had been made in the tobacco itself. Do you recall your testimony about that?

A. Most patients believe -- or they assume if something's being packaged as a lower tar product, that it would have lower -- something that's been done to the tobacco. It's like the Marlboro and the Marlboro Light. If a person switched from a Marlboro Red to a Marlboro Light, they would assume, and they -- this is what they say, that someone's done something to the tobacco to change that so that it's lower in all the bad stuff. That's what they tell me.

Q. Sure. And the FTC machine picks up not only changes that would occur in tobacco itself, the FTC machine also picks up changes in the physical design of the cigarette like the ventilation holes; right?

A. Uh-huh. Correct.

Q. It also picks up if the paper is porous, and that has an impact on how much air gets mixed in with the smoke and the smoke concentration. It would pick up those kinds of changes as well as changes in the

filter itself; correct?

A. It would -- it would do that to the best of the ability of the machine to do that.

Q. Right. So the FTC machine in a sense picks up any and all physical factors and compositional factors of the tobacco that would affect the smoke as it comes out of the end of the cigarette. Fair?

A. As it's smoked by the machine.
Q. As it's smoked by the machine.
Now in point of fact, isn't it true that, together with all of the other recommendations that were being made by the National Cancer Institute in the 1970s regarding changes to cigarettes, that the National Cancer Institute and Dr. Gori were also recommending -- this goes back to Exhibit GI27 -- that one of the strategies for achieving a low risk cigarette -- Dr. Gori, remember, was part of the Tobacco Working Group, said, "One of the strategies" --
A. Pardon me. Which Tobacco Working Group?
Q. I'm sorry?
A. The part of which Tobacco Working Group? You said he was part of the Tobacco Working Group. I'm just asking which one.
Q. Well are you aware of any other Tobacco Working

Group with the National Cancer Institute?
A. No. I wasn't familiar --
Is it the NCI?
Q. Oh, yes. I'm sorry.
A. The NCI.
Q. The National Tobacco -- National Cancer Institute Tobacco Working Group, 1970s, Gio Gori, 10-year program, 60 million dollars. Yeah, that one.
Now if you take a look at the paragraph at the bottom of the page, it says, "First, it may be possible to remove toxic smoke components selectively and thus reduce specific hazards."
Now that strategy would be the strategy that would include changes to the tobacco itself; correct?
A. That would be like removing carcinogens --
Q. Yes.
A. -- like benzpyrene or one of the other carcinogens.
Q. Okay. Now in point of fact, isn't it true that the Tobacco Working Group itself focused very specifically on how to change -- whether it was possible to change tobacco in precisely this kind of way in order to reduce the risk associated with the tobacco? Wasn't that part of what their work was?
A. That's part of what they were considering, yes.

Q. Okay. In point of fact, what The Tobacco Institute National -- or the -- the Tobacco Working Group, National Cancer Institute effort accomplished was that they used mouse skin-painting -- mouse skin-painting as a measure of the potential toxicity of different kinds of cigarettes; right?
MR. CIRESI: Objection, scope and form of the question.
THE COURT: Do you understand the question?
THE WITNESS: Well I --
A. This is a very broad question. If you -- I need to see more than just MSP up there if we're going to

talk about all the things that that group did. They did a lot of things.
Q. Sure.
A. And so if you've got some documentation I can look at, I'd be glad to do that.
Q. There's vast documentation of the Tobacco Working Group. Are you familiar with the final conclusions the Tobacco Working Group reached?
A. I think the overall conclusion was that there was no way to design a safer cigarette. That was kind of the overall -- overall conclusion.
Q. And in reaching that conclusion, didn't they take a look at epidemiological data; that is,

comparative data on how smokers fared from the point of view of disease?
A. They could have. That -- that was a large group for a long time, did a lot of work. I'm not going to be able to tell you all the different parts of what they did. I mean that's --
Q. Do you know any of the parts of their work?
A. I couldn't tell you off the top of my head, no.
Q. Okay.
A. Except that was kind of the final -- that was the overall conclusion.
Q. That was the overall conclusion.
But the reason I focused in on that was you raised the issue of whether to change the tobacco. Certainly the possibility of changing tobacco was one of the very things that the National Cancer Institute focused on in the context of that work; right?
A. Well I think your question was in dealing with my patients and -- and their --
Q. My question was directed to --
A. The question you asked earlier --
MR. BERNICK: Your Honor -- Your Honor --
THE COURT: We cannot have two people talking at one time. I realize we have two reporters, but it doesn't work that way, gentlemen.

So if you'd please talk one at a time. Allow the witness to answer the question, please.
A. I think the question was what I do with my patients, what they assume has happened to the cigarettes. If they have a Marlboro Red and a -- and a Marlboro Light, one of the assumptions that they have is that something has been done to the tobacco that's different in the Marlboro Light compared to the Marlboro Red. That's in today's contemporary time, not 28 years ago. That's right here -- this is -- this is last week. This is what they think.
Q. My question really was: Wasn't the specific focus of the Tobacco Working Group to see whether in fact you could change tobacco, the tobacco itself? Apart from these other changes, the tobacco itself, wasn't that part of the focus of the work they did?
MR. CIRESI: Objection to the form of the

question and the scope.
THE COURT: You may answer that.
A. Work -- I --
You mentioned working group. See, I know there are different working groups. But they did a lot of different things, all of them. There was a lot of work going on with this group over a long period of time. So if you have something that you can give me

that I can look at, I'll be glad to try to -- try to help with it, but I cannot recall all those details.
Q. Have you read any of the reports that came out of the Tobacco Working Group of the National Cancer Institute? Have you read any --
A. I read some of those, but I do not recall which ones or how much of each one I read. I read a lot of things over the last year and a half, and I -- and maybe even before then, so I --
Q. Before you came and testified, did you focus on those in particular, or --
A. No, not -- not -- no.
Q. What about all the work that the companies did internally, research work internally on changing tobacco composition, did you come to learn about the work that had been done internally over the years to change tobacco composition?
MR. CIRESI: Again, Your Honor, objection to the scope. It's the subject of another witness.
A. I saw documents that deal with these things, but, you know, this is -- this really is the area of another person to deal with this, another expert in this -- in this as far as design of the cigarettes and what happens when you add ammonia, what are the specific things that happen. That's -- that's under

the purview of someone else.
Q. Well the reason I asked is you showed the jury a number of internal research documents that had been provided to you in connection with this case.
A. Uh-huh.
Q. And all that I'm asking you is were you provided and did you review the internal research documents which show the extent and scope of the effort in years of research that was dedicated by the tobacco companies to try to figure out the way to change the tobacco? Did you look at those documents or not?
MR. CIRESI: I'm going to object to the form of the question, and also it's repetitious, and the scope.
THE COURT: Objection sustained.
BY MR. BERNICK:
Q. Dr. Hurt, separate and apart from trying to change the tobacco, isn't it also true that efforts were made to try to develop whole new kinds of alternative smoking devices? Isn't that true?
MR. CIRESI: Your Honor, I'm going to object to the scope of the question.

THE COURT: Could you be a little more specific what you're talking about, counsel?
MR. BERNICK: Sure.

BY MR. BERNICK:
Q. You showed the jury exhibit -- Plaintiffs' Exhibit 11938, at volume three, tab 104.
A. Okay.
Q. Do you have that in front of you?
A. I do.
Q. And I think you showed --
One of the things that you showed the jury was -- woops. Got the wrong one -- this statement here, remember that one? This is a 1962 document that was drafted by people working for my client, the British-American Tobacco Company; correct?
A. It is a B.A.T document, yes.
Q. Okay. And this one says, "As a result of these various researches, we now possess a knowledge of the effects of nicotine far more extensive than exists in the published scientific literature." Do you see that?
A. That's correct.
Q. And that's the one that you -- one of the statements that you directed the jury to. Do you recall?
A. Yes.
Q. Did you ever take -- ever learn about the assessment that was reached of that research by

outside scientists?
A. The project meaning which one of these? There were several projects in here as far as the projects that are listed in this whole report, MAD HATTER, you know, I, II, III --
Q. Right.
A. -- and so on. HIPPO I.
Q. Right.
A. So which one are you talking about?
Q. Any of them.
A. I think there was some things published, but I couldn't tell you from which one of these there were.
Q. Okay. Maybe we'll come back to that a little bit later on.
A. Okay.
Q. What I want to focus you on is the statement that appears at page 12, right here. "It will be only too obvious that our information is still fragmentary, and this is the reason for proposing the work on the effects of nicotine should be continued after a further contract HIPPO II." And then it goes on to say, "We have considered very carefully whether we have enough basis to make a first attempt at an alternative smoking device, the Project ARIEL, and I think that on balance this is so."

Did you learn --

Did you look into the fact that the motive for the work that's being reported here was in fact to develop an alternative smoking device that would be a safer device, would pose less risk to the smoker? Did you learn that?

A. Well germane to what I'm talking about, which is nicotine addiction, that device is a -- is a nicotine-delivery device. That's what it is. It's not a smoking device as described in -- in these -- in these papers. It's a nicotine-delivery device. It's a drug-delivery device.

MR. BERNICK: I move to strike as not being responsive, Your Honor.

THE COURT: Well the answer will stand.

Q. Did you learn about the Project ARIEL and that it was a project to develop a whole new smoking device that would provide less risk to the smoker?

A. What I learned was it was a -- a look-alike, if you will, cigarette that delivered nicotine. It was a nicotine-delivery device. I mean might as well call it what it was. That's what it was.

Q. Okay. And did you learn that the purpose of trying to develop that nicotine-delivery device was in fact to respond to the health concerns that had

been raised about conventional cigarettes? Did you learn that?

A. It -- it may have been, but the problem was regulatory stuff. If you have a delivery device for a drug, then the FDA becomes the regulator of drug-delivery devices.

Q. Well the FDA -- this is Britain. The FDA doesn't act in Britain. My question to you is a little bit different.

Was the purpose of developing Project ARIEL to develop a device that would be responsive to the health concerns that had been raised about conventional cigarettes? Was that the purpose of the project?

A. I'd have to look --

It's probably written right on these pages. If you'll allow me a second, I'll look at them, if that's written here as far as what Project ARIEL is about. It's probably written as far as the -- what it says it's -- it's going to do.

Q. Well was that your understanding?

A. My understanding was Project ARIEL, as well as other nicotine-delivery devices that had been proposed and developed over the years internally -- and none of them really have been

thoroughly tested or even marketed that well -- they were nicotine-delivery devices. They weren't cigarettes at all.

Q. Did you learn that the purpose was as I described it? Tell me "yes" or "no."
A. Well --
MR. CIRESI: Your Honor, I'm going to object.
THE COURT: Counsel --
MR. CIRESI: It's been asked and answered.
THE COURT: Just a moment. Just a moment, please. Counsel, do not instruct the witness on how to answer. Okay?
A. Just a moment.
"Code name ARIEL, this will be aimed at taking the first steps toward an actual smoking device as an alternative to the cigarette. The basis for this work is provided by the results from above, approximately one year, 12,500 pounds."
Q. Okay.
A. That's what it says.
Q. Now --
A. And that's what the object is.
Q. That's what the object is.
Now did ARIEL ever manage to succeed? Did it

ever become commercialized?
A. I don't -- I -- I couldn't go buy one of them if I wanted to, I don't think.
Q. Okay. Did you learn of other efforts that had been undertaken by the tobacco industry to develop other alternative devices?
MR. CIRESI: Objection, relevance.
THE COURT: No, you may answer that.
A. I have seen reports of other devices from more than just one company, but again, they -- they're drug-delivery devices is what they are.
Q. And as you learned about those reports, did you learn about a product called Premier?
A. Yes.
Q. And Premier was a product that was developed by Reynolds; was it not?
A. R. J. Reynolds, yes.
Q. Okay. And is it a fact that this was a product that was test marketed in 1988?
A. It's been a few years ago. I can't remember the exact date.
Q. And -- and that the effort that was behind bringing project -- or bringing the Premier product to market for test purposes was an eight-year effort that resulted in over 40 patents and about a seven

hundred page monograph of testing, do you remember that?
MR. CIRESI: Your Honor, I'm going to object to the form of the question. It's constant testifying.
THE COURT: The objection is sustained.
BY MR. BERNICK:
Q. Well, did you learn that the Premier product had

been covered in a monograph reciting testing that extended to over seven hundred pages?
MR. CIRESI: Your Honor, again I'm going to object to the form and to the scope. It's outside the scope of direct of this witness.
THE COURT: The objection is sustained.
BY MR. BERNICK:
Q. Dr. Hurt, did you come to the conclusion with regard to the Premier product that in fact Premier product was a product that --
A. Was a what?
Q. I'm sorry. That Premier in fact was a product that avoids large number of things that are produced in tobacco, whether it's in reconstituted cigarettes or whatever form it is in, whatever -- whatever it is that is burned?
MR. CIRESI: Your Honor, again I'm going to

object, it's outside the scope of direct.
THE COURT: You may answer that.
A. I guess I'd just like to see what you're reading from so I can know what -- what document you're talking about.
Q. Let me put it to you simply. Have you come to the conclusion after you learned about the Premier product that it would have been safer to pursue that type of technology?
A. Premier was a drug-delivery device. That's what it is. The little pellets of glycerol that had nicotine contained in them, when heated up, delivered nicotine. It was an euphemism for a cigarette. It wasn't a cigarette at all, it was a nicotine-delivery device plain and simple.
MR. BERNICK: Your Honor, I move to strike as non-responsive.
THE COURT: I'll let the answer stand.
Q. Haven't you reached the opinion that the Premier technology was a safer technology?
A. That hasn't been proven at all.
Q. Did you reach the opinion that the technology was a safer technology?
MR. CIRESI: Your Honor, asked and answered. It's also outside the scope.

THE COURT: It's been asked and answered, counsel.
Q. In fact, Premier did not succeed in the market, in the test marketplace; did it?
MR. CIRESI: Your Honor, objection, outside the scope.
THE COURT: You can answer that if you know.
A. If -- if "the test market" means that I can't go buy a package of Premier because it failed in the market, I can't go buy a package of Premier anyplace that I know of, if that's what -- what the question is.

Q. And isn't it a fact that the AMA actually opposed the introduction of this product that was designed to reduce deliveries to the smoker?
MR. CIRESI: Objection to the form of the question. Counsel is again testifying.
THE COURT: Okay, rephrase the question, please.
BY MR. BERNICK:
Q. You're a member of the American Medical Association; are you not?
A. Yes.
Q. Isn't it a fact that the AMA took the position

that the product should not in fact be marketed?
A. I'd have to look and -- look back at the policy of the AMA -- the policies that are published by the House of Delegates of the AMA. There are many of those.
This is 10 years ago. If you have something that refers to that, I could confirm whether or not they did.
Q. Wasn't that also the position taken by the Minnesota Department of Health, that the product shouldn't be marketed?
A. I'd have to say the same thing, I -- if -- I'm not in the Minnesota Department of Health and so I may or may not know about the policies that they might have.
Q. I'm just asking. Maybe you don't know the answer then. Has the Minnesota Department of Health ever endorsed efforts to produce a lower risk cigarette?
A. I honestly don't know.
Q. Have you ever in writing spoken out and endorsed the idea of continuing to work for a lower risk cigarette? Have you ever done that?
A. I can't recall doing that, but -- there's been a lot of things we've written over the years, but I

can't recall ever writing that, that there is -- there is a way of doing that. If I have, maybe it's just something I don't recall. But I don't recall that.
Q. Have you taken a look at the Eclipse cigarette that's now being test marketed?
A. Uh-huh. Yes, I have.
Q. Okay.
A. It's a drug-delivery device just like the other ones.
Q. But you believe that all cigarettes are drug-delivery devices; correct?
A. You're right.
Q. Okay. So let's now talk about risk. Have you taken a look at the question of whether Eclipse might be a lower risk product?
MR. CIRESI: Your Honor, again it's outside the scope of direct.

MR. BERNICK: Your Honor, he talked extensively about low delivery cigarettes and whether they really were a benefit to the consumer, and we're pursuing exactly the same subject.

THE COURT: You may answer, if you know.

A. I think it's yet to be proven whether or not that device will do what it claims to have done. I

mean I -- it --

We don't have a long-enough history with that device and I don't know all of the work that's been done internally with that device to prove it to be safer. I mean I -- I've seen documents, but I do not know all of them.

Q. Okay. Well certainly if it were a lower risk --

MR. CIRESI: Excuse me.

A. -- product --

MR. CIRESI: Excuse me, Your Honor. These documents were not produced, post-1994. Line of questioning is inappropriate.

MR. BERNICK: I object to that.

THE COURT: The objection is sustained. It's post-'94 non-produced documents. Objection sustained.

MR. BERNICK: Okay. I'm -- I'm really -- I'll rephrase my question, ask for a different source of information, Your Honor. I'm really asking about his own experience in knowing about Eclipse. That's what I'm trying to pursue with the question.

THE COURT: That was not your question.

MR. BERNICK: I understand, and I will try to rephrase my question.

BY MR. BERNICK:

Q. Eclipse has been described in publications; has it not?

A. Yes.

Q. I'm sorry?

A. It has, yes.

Q. Yeah. In fact there's been discussion in your examination about Dr. Hoffmann. Do you recall Dr. Hoffmann?

A. There are a lot of Dr. Hoffmanns. Do you have a first name?

Q. Okay. A Dr. Hoffmann is in fact one of the authorities on cigarette design; is he not?

A. There are a lot of Dr. Hoffmanns.

Q. Okay. Dietrich Hoffmann.

A. Dietrich, yes, I remember.

Q. He's a pretty well established authority in the area of cigarette design; is he not?

A. He's written a lot on that, yes.

Q. Okay. If you could take a look -- I will provide it to you. It's Exhibit 18952. It has been disclosed, and I would tender up a copy to you.

MR. BERNICK: Here, Mike. Here you go.

(Document handed to Mr. Ciresi.)

Q. Is that an article that has been published by Dietrich Hoffmann?

A. Yes, in the Journal of Toxicology and Environmental Health, 1997.
Q. Okay. Is that a peer-reviewed journal?
A. Yes.
Q. Okay. Was he an authority in his field?
A. He's written a lot, yes.
MR. BERNICK: Okay. We offer it. Learned treatise.
MR. CIRESI: No objection under 803(18).
THE COURT: It will be admitted under 803.
BY MR. BERNICK:
Q. Now if you came to view, Dr. Hurt, that there was another product or another device, as you would put it, on the marketplace that might provide less risk to your patients, would you feel it appropriate to at least tell them of that as one of the options that they could pursue, recognizing that your overwhelming advice would be not to smoke at all, but would you at least let them know that there's an alternative out there?
A. No. Tell you why if you want me to.
Q. Okay. So even if you concluded on the basis of this piece or some other piece of information, published information, that Eclipse was a lower delivery product and in fact was a lower risk

product, that's not something that would be appropriate in your medical judgment to share with your -- with your patients; correct?
A. I would have to be assured before I made a recommendation that the product was safe and effective to do what it says it's going to do, just like any other drug. If I were to recommend nicotine patches to a patient, nicotine nasal spray to a patient, there is a very long and arduous path that drug companies have to do to prove a device or a medicine is safe and effective.
Now if I were assured by those sorts of standards that Eclipse was safe and effective, then I might consider it. But I don't think we've had enough evidence yet. One article does not make cumulative medical literature to make those kind of conclusions.
Q. Okay.
A. So I don't -- I don't know what the end result is going to be with the experience with Eclipse at all.
Q. With all respect, I'm asking really a question way before we get to that end. It's just a much more specific question. My question is this: If you concluded that a product might pose less risk, even

though you don't know for a fact, but might pose less risk, would it be appropriate to at least let your patients know that that option was there, even if you didn't know that in fact it was safe, would that still be information that you would want to provide to your patients?

MR. CIRESI: Objection to the form of the question. It's compound, calls for speculation, conjecture.

THE COURT: You may answer that if you know.

A. Well we actually do that today, but we do it with products that are nicotine-delivery products, the nicotine nasal spray, the nicotine gum, the nicotine patches. If a person comes and says I don't think I can stop smoking and I think I want to continue using nicotine, those have been proven to be safe and effective. This one hasn't. It's --

It's a simple matter of proof. And so in that situation I would say these are the alternatives, we have patches, we have gum, we have nasal spray, we have inhaler, and if you use the inhaler and you use it for a long time, that is safer than smoking cigarettes.

I cannot say that same thing about a device that

delivers very high levels of carbon monoxide, which Eclipse does.

Q. Okay. Dr. Hoffmann talks about a novel type of smoking product that's been introduced on the test market in 1996 under the name Eclipse in the United States and then other names else somewhere, "To effect a drastic reduction of the smoke yields of toxic and carcinogenic agents, the R. J. Reynolds Company has developed this new version of the type of cigarette that heats tobacco rather than burns it." Do you see that?

A. Yeah. And I've always been puzzled by the anonymous behind it. I don't know what that means, "Anonymous 1996."

Q. You see the statement, Dr. Hurt?

A. Pardon?

Q. You see the statement that appears before the citation I just read?

A. Yeah, I see the statement.

Q. Okay.

A. But I don't know who to attribute it to since it's anonymous.

Q. Right. In point of fact the concept would be, when you burn tobacco, you create a wide array of chemicals, some of which are known to be

carcinogenic; correct?

A. I believe that, yes.

Q. Yes, I understand that that's what you testified to. The concept here is if you heat tobacco rather

than burn it, you might be able to reduce some of that output of those types of chemicals. That's the basic concept; is it not?
A. That's what it says.
Q. Okay. And in point of fact Dr. Hoffmann says -- and there's a prefatory statement, talks about the nature of the data-gathering process and then goes on to say, "Nevertheless, there is still substantial reduction of carcinogenic agents in the sidestream (airstream) of the Eclipse by comparison to the smoke of low-yield filter cigarettes; results from short-term assays for general toxicity also indicate that the carcinogenic potential of the smoke of Eclipse is significantly lower than that from low-yield filter cigarettes." Do you see that statement?
A. Yes, I do.
Q. Okay. So my question to you is real simple: Have you gone through the process of looking into Eclipse to find out how good the data is on whether in fact it has a reduced delivery of these types of

chemicals and therefore might be in fact less risky? Have you done that investigation?
MR. CIRESI: Your Honor, we're going to object to this line of questioning. We don't have the documents from the defendants with respect to their own knowledge, and it's also outside the scope of this witness's testimony.
THE COURT: The objection is sustained.
Q. Do any of your patients use Eclipse?
A. I don't recall any reporting that they have.
It's not available in Rochester, to my knowledge.
Q. I'm going to finally come back to pH for just a moment. I apologize for the diagram that I drew the other day.
I want to talk a little bit about a couple of the things you said concerning some of the data that relates to this. First of all, do you have the -- let me get the 1979 Surgeon General's report. I don't believe this is in evidence yet. Is it, Michele?
MR. BERNICK: We would offer GJ113. It's the 1979 Surgeon General's report.
MR. CIRESI: No objection, Your Honor.
THE COURT: Court will receive GJ113.

Q. It's a thick document, Dr. Hurt, so I've marked a couple pages that I'm going to be showing you.
1979, Surgeon General writes a report, the report in fact deals with the subject of absorption of nicotine and pH; does it not?
MR. CIRESI: Excuse me. May we have the page, Your Honor?
MR. BERNICK: Yes, I'm sorry. It's page 14-85.

Q. Do you see that page there? Are you -- are you with us on 14-85?
A. Yes.
Q. Okay. And in fact if you flip the page, there is that chart there, that pH chart that's very similar to the chart that appeared in the company document which then we blew up. Do you remember that?
A. Right. Yes.
Q. Okay. And in fact the Surgeon General in 1979 was discussing in his report to Congress about differences in nicotine absorption largely determined by the pH of smoke. Do you see that?
A. Yes.
Q. And he says that there are striking differences in nicotine absorption determined largely by pH;

correct?
A. Yes.
Q. That would be consistent with your own view; would it not?
A. Yes.
Q. Okay. And if you come on down, "The basic, lipid-soluble, uncharged nicotine is in the form absorbed by the oral mucosa." That's in the mouth; right?
A. That would be in the mouth, yes.
Q. "A contributing factor to its absorption is that nicotine, as the free base, is volatile, which allows for rapid absorption from the gas phase."
That's again something that you've discussed with us here in court and the Surgeon General is talking about in 1979; true?
A. I would have talked just briefly about the gas phase, and I think there is another expert that's really going to get into the gas phase and all of those details.
Q. Okay. You were talking about the absorption aspect, the absorption aspect of free nicotine.
A. Is pH dependent, yes.
Q. Okay. And that's again what he's talking about in the reports; correct? Right here.

A. That's part of what they say, yes.
Q. Okay. But then it turns out that later on in the report, says -- if you take a look at cigarettes that are actually sold, it says, "Since cigarettes in the United States and in most foreign countries are made of flue-cured tobacco, are blends with flue-cured tobacco as a major ingredient or, in a few cases, are blends with Turkish tobacco, the pH of the resulting mainstream smoke is below 6.5 and thus essentially contains only protonated nicotine."
Protonated would be not the free stuff, it would be the bound nicotine; correct?
A. That's correct.
Q. And that's the statement that he made in 1979,

and that's the statement that I take it you would agree with today.
A. Yeah. If it's a pH of 6.5, most of it would be in the protonated form.
Q. Okay. And in point of fact, we then get to a part of the report that I want to focus very specifically on, which is --
Well what would happen if you moved the pH up? What would happen if you started to really boost that pH up and going over here?
MR. CIRESI: May we have the page, Your

Honor?
MR. BERNICK: Oh, sorry. I think the witness has it. It is 14-87. As a matter of fact, I can show it in this chart here.
Q. He's asking, well, what would happen if we now start to move way over here. There's a citation to Armitage, that's the same Dr. Armitage we've been talking about for a couple of days now; correct?
A. Yes. I think that's the same citation, actually.
Q. Okay. And what he cites there is that "Armitage recently studied the effects of nicotine absorption in humans, comparing nicotine levels obtained in arterial blood. They found that arterial blood plasma concentrations of nicotine were comparable; however, the level rose more slowly in the smokers of small cigars. This may be due to a greater amount of the small cigar smoke being absorbed via the oral cavity as compared to cigarette smoke, which is primarily absorbed via the lung."
What Armitage had found as reported by the Surgeon General is that in small cigars, which are higher in pH, over here, their nicotine tends to be absorbed in the mouth; therefore, goes to the venous system, the slower route, as opposed to going down

into the lung where it's arterial, correct?
A. Only if they do it that way. If they inhale the cigar smoke they'll have more rapid absorption because there's more free base nicotine the higher the pH.
Q. Okay.
A. So people who smoke cigars and small cigars, contrary to popular belief, often to inhale that smoke.
Q. Okay. So what he's -- what he's saying is that these cigar smokers in this case are inhalers or not inhalers?
A. Say again?
Q. As he's reciting it here, are the cigar smokers inhalers or non-inhalers?
A. I'd have to read this. I haven't seen this in a long time.
Q. So your feeling would be and what you predict is that as the pH increases, it will still -- the

nicotine will still be absorbed in the lung just like it is at commercial levels; is that what you're saying to the jury?
A. I don't think so. I -- you've kind of lost me in some of your train here.
Q. Your theory -- your theory of this case is that

as nicotine pH gets boosted, the lung absorption increases; right?
A. The higher the concentration free base nicotine, the more rapid it goes across the membrane and the higher the concentration in the blood.
Q. Right. And that's your one, two, three. Most nicotine is in the lung, has to be free; if it's free, it's a direct route to the brain. And your theory is that if you increase the amount of free nicotine, more of it gets absorbed down here and takes the highway to the brain; right?
A. The more rapidly you get across the membrane in the lungs, the more rapid -- more rapid it can go to the brain.
Q. Okay. Now I asked you last time about studies that involved inhalers. Do you recall that?
A. Yes.
Q. Okay. And the nicotine inhalers that we're talking about are inhalers, as you indicated in your testimony last Friday, that tend to be more basic, they're more on the free nicotine side; correct?
A. I'd have to look at which inhaler you're talking about. There are probably more than one product out there. The one that I'm familiar with is -- is manufactured by Kabi Pharmaceuticals in -- in Sweden,

and that is the absorption takes place through the mouth and about right there (indicating).
Q. Okay. Now with those inhalers, if they are in fact more of the free base nicotine, given your theory, you would expect that if they were inhaled --
A. Oh, but they're not. That's the whole point. The whole point is they're not inhaled. They don't get past about right here (gesturing). That's --
Q. Your statement is -- let's just capture this and make it real clear -- that the inhalers --
"Inhale," is it l-o-r or l-e-r? L-e-r.
-- inhalers are not inhaled into the lung.
A. The inhaler that I'm talking about is the one we've worked with that will be released on the market this year as a pharmaceutical product. Now I don't know whether other inhalers -- there may be other inhalers that other people have developed. I'm talking about the one that's going to be called Nicotrol inhaler. It will be marked by SmithKline Beacham. That's the one I'm familiar with.
Q. Okay. In point of fact, the research that's been done, Dr. Hurt, has actually involved taking inhalers, nicotine inhalers, and telling the people who are in the experiment that they should inhale

into the lung so that it can be determined where that

nicotine goes. Isn't that the work that's been done in this area?

MR. CIRESI: Objection, form of the question.

THE COURT: Sustained.

Q. Isn't it a fact, Dr. Hurt, that the experiments that have been done on inhalers involve people not just taking it in their mouths, but trying to take it into their lungs? Isn't that a fact?

MR. CIRESI: Objection, form of the question.

THE COURT: The objection is sustained, counsel.

Q. Well you just tell me one way or another, Dr. Hurt, whether you know whether the subjects in those studies are in fact inhaling it into their lungs.

MR. CIRESI: Objection, asked and answered.

THE COURT: Sustained.

Q. Have you reviewed any of the studies, Dr. Hurt, that we're talking about here?

A. I've reviewed the internal documents from the pharmaceutical company that developed it.

Q. Have you read the studies that have been done on nicotine inhalers which show where the nicotine in -- the free base nicotine goes?

A. My knowledge is only of one inhaler we're talking about. Now maybe if you have knowledge of other inhalers, that's fine, but the only one I know of is the one we've worked with in our research program, the Nicotrol inhaler.

Q. That's made by -- made by the Pharmacia Upjohn Company?

A. That's it, yeah.

Q. Okay. I'm asking you: Have you taken a look at the studies that have been put together by Pharmacia for its Nicotrol inhaler?

A. When you have -- when you're an investigator on a study, you receive an investigator's brochure that has a lot of information from within the company. They provide you with everything that they know about their product. Now if you have a study you want me to look at, why don't we just look at it? I mean there's obviously one you have in front of you and I'd be glad to look at it. But we're provided with an investigator's brochure, which is about this thick, which has all of the company's information about that product, all the animal experiments, all of the other adverse events, potential adverse events before we do that.

Q. Okay.

A. That's what I've seen.
Q. That's fine.
A. If there's an article you want me to look at it, I can look at it.
Q. Volume two, tab 47, GK10105.
A. Tab number?
Q. Forty-seven.
MR. CIRESI: Your Honor, may I have the GK number again?
MR. BERNICK: It's 101015. And then I'm -- Your Honor, may I approach the witness?
Q. I'm going to hand you another study that I would also ask you about.
MR. BERNICK: This is for the court. This is the one that I gave you this morning, the Bergstrom study.
Q. Do you see that Exhibit 101015 is a study done on Upjohn -- Pharmacia Upjohn inhaler, Nicotrol?
A. That's what it says, yes.
Q. And it's a clinical pharmacology study?
A. That's what it says, yes.
Q. Okay. And do you see that there is a cover sheet -- you know much more about this than I do, but this apparently is a study that's been submitted to the FDA; correct?

A. Yeah. There's a thing called the new drug administration where they have a very large file there, so this could be part of that.
Q. Okay. And this is in fact a study of the Pharmacia Upjohn inhaler Nicotrol that we have just been referring to in your prior testimony?
A. Yes. That's what it says.
Q. Okay. And these are the kinds of studies that are done in connection with a new drug application; that is, pharmacology studies?
A. These are part of their safety as well as efficacy studies. These would be part of them, yes.
Q. And these are the kind of studies, I think you said, that you would ordinarily become familiar with in the course of your work dealing with nicotine-delivery devices; correct?
A. Correct, yes.
Q. Okay.
MR. BERNICK: We would offer it, Your Honor.
MR. CIRESI: We object. There's no basis to know whether this is complete. It's in Pharmacia. It's hearsay.
THE COURT: Doctor, are you familiar with this?

THE WITNESS: Well as I said earlier, we get a big thick book that is an investigator's manual.
MR. CIRESI: Have you ever seen this?
MR. BERNICK: Excuse me. Excuse me.

THE COURT: Counsel, just a moment, please.
MR. CIRESI: Sorry.
THE WITNESS: I don't know that I've seen this one, no. There's a lot of information that comes with all of the drugs we do.
MR. BERNICK: Okay.
BY MR. BERNICK:
Q. And is it typical that when you get a -- when you get a new drug that's on the market, or particularly an inhaler, there's a particular part of the analysis process that deals with pharmacology; that is, where the drug goes in the body as part of its delivery, distribution and metabolism; correct?
A. Well the first thing that we look for in any of these studies is safety. We want to make sure whatever we're doing with the potential patients is safe. That's where -- that's where we go to first.
Q. I understand that, but my question to you is a little bit different. I'm asking you whether as part of the new drug application process, that you do

pharmacology studies.
A. They have -- they have to do pharmacologic studies, yes.
Q. So this is -- this is a study that you have before you that doesn't address the ultimate question of safety but that deals with one aspect of how the drug behaves, which is where it goes; right?
A. If it has only -- only to do with pharmacology, that's what it would be.
Q. Well take a look at the table of contents. Is that what it deals with?
A. Basically. There is --
That's about all I see here, is pharmacology type of things, yes.
Q. Okay. And -- and is this -- is this kind of study the typical kind of study that's done in connection with the submission of a new drug application; that is, a pharmacology study, in your experience?
A. Yes.
MR. BERNICK: Okay. We offer it, Your Honor.
MR. CIRESI: Objection, it's incomplete.
THE COURT: As I understand it, you haven't seen that; is that correct?

THE WITNESS: I don't recall seeing this document, no.
THE COURT: Okay. The objection is sustained.
BY MR. BERNICK:
Q. Let's take a look at the second document, the published article. This is an article that is published in Clinical Pharmacology and Therapeutics in March of '95.
A. Okay.

Q. Is -- I mean you have to --
Is this in fact an article that was published -- take a look at it -- in Clinical Pharmacology and Therapeutics in March of '95?
A. Yes, it is. That's what it says.
Q. Okay. Is that a peer-reviewed journal?
A. It is.
Q. Okay. And these are people who are researchers abroad; are they not? They're in Sweden?
A. Yes, from Upsala. Looks like all of them are from Upsala.
Q. Okay. And this is a C14 tracer study. This is a study that puts radiolabeling on chemicals and sees where they go; correct?
A. Yeah. It's C11.

Q. Okay. And is that a technique that has been known really for really quite a number of years, decades, as a technique for determining the distribution of the drug or a chemical that is through C14 tag tracing?
A. Well C11 tracers, for this purpose.
Q. C11, right.
A. C14 has to do with the carbon aging of things.
Q. Right.
A. So C11 is -- is a way of doing it. I don't know how far the technology goes.
Q. Fine.
A. I don't know how long it's been around.
Q. Okay. Is this -- is this --
Well is this publication a publication that would be an authoritative and reliable source of material if you were trying to understand the distribution of nicotine from a Nicotrol inhaler, which is the subject of the study?
A. That is the subject of the study. And I was actually looking through this. There is another study that -- that I'm more familiar with, it's not by these authors, I guess I was thinking about when I first saw this. So this is -- this is one that -- that reports on that, yes, as far as the -- where the

nicotine vapor would go.
Q. Okay. And if you were trying to understand where the nicotine vapor goes, this would be a reliable source of information on that subject, would it not, within your field?
A. Yes, it would be.
MR. BERNICK: Okay. We would offer it, Your Honor, learned treatise.
MR. CIRESI: We still don't know whether the doctor's reviewed it, Your Honor.
THE COURT: Have you reviewed this?
THE WITNESS: I don't know that I've seen this one. As I said, I've seen another one similar to this. I think it was different authors, but I couldn't -- I -- I would need to look this over

because it's not -- it's not real fresh in my memory. If I have read this, it's been a while.
THE COURT: Well why don't we give you a chance to look it over.
THE WITNESS: Okay.
THE COURT: Why don't we take a short recess at this time.
THE CLERK: Court stands in recess.
(Recess taken.)
THE CLERK: All rise. Court is again in

session.
(Jury enters the courtroom.)
THE CLERK: Please be seated.
BY MR. BERNICK:
Q. Thank you, Your Honor.
Dr. Hurt, have you had an opportunity to review the article?
A. I did.
Q. I apologize initially for the incomplete copy and still for the quality of the last two pages. I know that they are less than ideal.
A. Hard to read, but --
Q. Yes. But have you now had an opportunity to read the article?
A. I have.
Q. Thank you.
MR. BERNICK: Your Honor, I believe that I haven't offered this into evidence yet.
Q. Is this in fact an article that's been -- that's been published by researchers regarding the Nicotrol inhaler?
A. It has -- it is.
Q. Okay. And having read the article, I believe you will recall that we broke on the question about whether this is the type of -- this is an article

that you would consider to be a reliable source of information if you were looking into the issue of where nicotine from an inhaler goes. I think that was the question I posed to you.
A. Yes. And this -- this is the -- as far as I know, this is still the only inhaler that's on the market. But it's a misnomer. It really is a puffer, it's not an inhaler.
Q. A puffer then. Okay. They call it a nicotine vapor inhaler, that's why --
A. I told them to name it something else, but they're not going to do that.
Q. Okay. Would this then be an authoritative source of information on the distribution of nicotine from the puffer?
A. Right.
Q. Okay.
MR. BERNICK: We would offer it, Your Honor, as a learned treatise.
MR. CIRESI: No objection under 103(18) ,

Your Honor.
THE COURT: Under what?
MR. BERNICK: Excuse me, 803(18). Sorry.
THE COURT: Court will receive it under 803(18).

BY MR. BERNICK:
Q. Now to go through it a little bit, we have the title, and this is "Regional deposition of inhaled C11-nicotine vapor in the human airway as visualized by positron emission tomography," which I think is called PET for short; correct?
A. PET scans, yes.
Q. And we see that if we focus in, it's from the nicotine vapor inhaler; right?
A. That's correct.
Q. Okay. Now as I understand the technique, people were given the inhaler, got a radioactive tracer on the -- on the nicotine; right?
A. That's correct.
Q. So the idea is that what the scanning machine in effect sees are the little particles of radioactivity, the C11, that is attached to the little particles of nicotine as they go through the body.
A. That's basically it, yes.
Q. Okay. And that enables the people in the study to not only visualize but to quantify the location of nicotine in different parts of the body as it's processed, metabolized, distributed, whatever; correct?

A. Actually measures how much is left in the little inhaler after they're through.
Q. And as I further understand it, that technology has its limitations; does it not? And I think they are -- they are explored in the article, and we'll get to them in a minute. But the technology has limitations; true?
A. That's correct. But it's probably the most sophisticated one right now. PET scanning is not available everywhere.
Q. Okay. Now when the experiment was done, there were two inhalation techniques that were used -- I think they're kind at the bottom of page 310 -- one was the pulmonary mode, and there "The treatments with the vapor inhaler were given in short sessions with one vaporizor used over 5 minutes. In separate experiments either of two inhalation techniques were used: pulmonary and --
Is buccal or buccal?
A. Buccal.
Q. Buccal. And that's the mouth; right?
A. That's right.
Q. The "Pulmonary mode implies one deep inhalation for 5 seconds with four inhalations per minute for a total of 5 minutes (20 inhalations);" correct?

A. That's what it says, yes.
Q. And the buccal is described on the next page, "The buccal mode is more like the normal use of a pipe. The subject sucks at the vapor inhaler, with his mouth closed while breathing through the nose...." That's a puff; right?
A. Correct.
Q. As opposed to an inhalation into the lung.
A. That's right.
Q. And in point of fact, the Nicotrol inhaler is designed to be used, really, in this mode; that is, the buccal mode; correct?
A. Yes. And we'll get to the reason why in a minute. But that's -- that's the way it's designed to be used.
Q. Okay. Now in point of fact, after the inhalation took place, measurements were taken, and the article explains some of the limitations of the data. But I think that --
You can go to one of two places. Let's go to the summary first and then to the paragraph where the results are described. The summary says as follows -- very hard to get onto the screen, little --
"The deposition of C11 nicotine in the

respiratory tract from the nicotine vapor inhaler was studied by means of positron emission tomography in an intrasubject comparison of six healthy workers using two modes of inhalation: one with shallow, frequent inhalation (the 'buccal mode') and one with deep inhalation (the 'pulmonary mode'). An average of 15 percent of the radioactivity was released from the vapor inhaler after five minutes of inhalation."
Now it goes on to talk about where it goes; right?
A. Correct.
Q. "Approximately 45 percent of the dose released was found in the oral cavity. A significant amount of radioactivity, 10 percent, was observed in the esophagus, suggesting transfer of a major fraction of the dose to the stomach. Only a minor fraction was found in the lungs, followed by two percent in the bronchi and one percent in the trachea. The deposition in the oral cavity closely followed a linear pattern during the five minutes of inhalation and was followed by rapid elimination from the oral cavity with an average half-life of 18 minutes."
And then it goes on to talk about how -- how long the material remained elsewhere. But the basic numbers that we're working with were 45 percent was

in the mouth, then you've got ten percent in the

esophagus. Which is not the same thing as the trachea. The esophagus goes down to your stomach, not the lung.
A. That's correct.
Q. So we'll have ten percent over here to the side, and then suggesting a transfer of a major fraction of the dose to the stomach. So the thinking was that when the material came down, it came down through the esophagus to the stomach, and the suggestion was that because there were traces of it in the esophagus, a lot of it had gone to the stomach. Fair enough?
A. Right.
Q. Okay. And only a minor fraction was found in the lungs, followed by two percent in the bronchi and one percent in the trachea, which is you have -- what is it? -- five percent down here, then in the bronchi we have two percent and in the trachea one percent; right?
A. That's what it says, yeah.
Q. Five, two and one?
A. Uh-huh.
Q. Okay. And essentially what the study then concludes is that even when you have the puffing technique -- not the puffing, but the inhalation

pattern, most of the nicotine still --
And this is now the higher pH nicotine; right?
A. It's mostly free base, yes.
Q. Most of it is still absorbed in the mouth --
A. Uh-huh.
Q. -- rather than being absorbed in the lung; true?
A. That's what it says, right.
Q. Okay. Now do you know whether it is this kind of data that led Dr. Benowitz to take the view and the position that when you increase the pH of cigarette smoke, you're probably going to only increase the impact in the mouth, you are not going to significantly change bioavailability in the lungs, do you know whether this was the data that supported Dr. Benowitz's conclusion about the effect of increasing pH in cigarette smoke?
MR. CIRESI: Objection, misstatement of the Benowitz article, and calls for a conclusion on the part of this witness based on speculation.
THE COURT: You may answer if you know the answer.
A. I don't know if he used this as a basis of -- of that article or not. I'd have to look back at the article.
I recall that you gave me two Benowitz articles;

correct?
Q. I gave you the statement -- I gave you a Benowitz article on the absorption regardless of pH.
A. And what was the date of that?
Q. And that -- that was 19 -- that was 1988. And then I gave you the Benowitz statement in Canada,

which was nineteen ninety -- I think that was 1991.
A. Yeah. I don't think we really saw that whole document of that --
Q. That was 1996, I think, March of 1996.
MR. CIRESI: That document was not introduced into evidence.
MR. BERNICK: But the witness's testimony concerning Dr. Benowitz's views did come forward before this jury and is in evidence, Your Honor.
MR. CIRESI: Your Honor, I'm going to object to counsel's statement.
THE COURT: The objection is sustained.
BY MR. BERNICK:
Q. Dr. Hurt, do you know whether this data in fact was the basis of Dr. Benowitz's views?
A. This --
MR. CIRESI: Objection, asked and answered.
MR. BERNICK: I thought that was a different question I put to him.

THE COURT: Seems like it was the same question that was just asked. You can maybe rephrase it, but --
MR. BERNICK: Yeah.
Q. Is this -- is this data -- let me just ask you more generally. Is the data --
This is not the only study that's been done on the distribution of nicotine -- higher pH nicotine from inhalers, there are other studies as well; right?
A. I think there's only two that I'm aware of, one cited in here, which is a little earlier than this one. But this one actually pre -- you know, this is a long time after the '88 article by Benowitz. This was not known at the time as the inhaler we're talking about wasn't available. I'm not sure when they started studying it, so --
Q. But bear with me. My question is: There is this study and there are at least two other studies that are out there.
A. I'm not aware of another one that is cited in the back of this article.
Q. Okay.
A. And maybe there are more, but I couldn't make out from the back of the article --

There's one reference, number nine, and I can't make out if the other article is before that. I just can't view the bottom of this. There are one or two articles.
Q. There was another article also -- a study that was also done on the Favor cigarette in 1987, similar kind of study?
A. There were studies done on the Favor cigarette.
Q. Okay. Do you remember what the conclusion of those studies was?
A. I can't -- I -- I really can't recall. It was

similar to this I would assume. Similar.
Q. In point of fact, isn't it true that all of the studies that have been done using inhalers or other -- the Favor cigarette, all of them basically have concluded that the nicotine is for the most part absorbed in the oral cavity?
A. There's no carrier. There's no vehicle to carry the vaporized nicotine. That's the missing part of the inhaler. It's not like the inhalers that you puff on with asthma, it's not like that at all. I mean everyone has that little notion that we're talking about an inhaler that you press on it and it gives a metered dose with the particles that goes into the lung. There is a vapor, it is a little

puffer, and so there's no particle like tar or glycerol or other things to carry the nicotine down into the lungs, so quite natural, really, it stays only from here up. That's as far as it goes.
Q. And in the cigarette smoke, isn't it a fact that a portion of the free base nicotine, to the extent that it exists in cigarette smoke, is in fact in the vapor phase as opposed to the particulate phase?
A. It's in -- it's in an equilibrium, yes.
Q. Okay. And therefore to the extent we're talking about vapor phase or gaseous nicotine, is the vapor phase or gaseous nicotine also vapor phase nicotine in these studies?
A. I don't know what you're pointing to.
Q. In this --
I mean these are vapor phase nicotine studies; correct?
A. This is a nicotine vapor inhaler.
Q. Right.
A. It's a misnomer. It unfortunately -- it's like the nicotine gum, the nicotine gum really wasn't a gum. If you use it correctly, you don't chew it like a gum. If you try to inhale this, it doesn't work. That's what the study says. Even if you try to inhale it, you can't get it in.

Q. Even if you try to inhale it, it's very, very hard to get vapor phase nicotine into your lungs; true?
A. There has to be a particle to get it down into the lungs, right.
Q. So if we went back and talked about the 6.028 smoke coming down and that one percent of that smoke, the one percent was the free nicotine, what portion of that one percent is vapor phase and what portion of that one percent is particulate?
MR. CIRESI: Objection, that's a subject that was gone over last week. Attempting to go over the same grounds.
THE COURT: This is repetitious, counsel.
MR. BERNICK: I'll try to pursue it one further step so that I'm --

THE COURT: Don't --
MR. BERNICK: I'll ask another question.
THE COURT: Don't pursue the repetition, counsel.
MR. BERNICK: Okay.
THE COURT: Ask something new, please.
MR. BERNICK: Fine. That's all I have this afternoon, Your Honor.

REDIRECT EXAMINATION

BY MR. CIRESI:

Q. Good afternoon, doctor.
A. Hi.
Q. I'd like to first deal with the -- the process of scientific evolution, if you will. We've heard a lot about a few medical articles that were brought to your attention. How many medical articles, roughly, are produced in the literature just in this country every year?
A. Oh, there are thousands.
Q. So over the last 40 years of time that we're involved with in this case, there would be hundreds of thousands if --
A. Oh, sure.
Q. Okay. And in the course of your work, doctor, how many articles do you review on a weekly basis, just on average?
A. Well depends on what the week's like. It would probably be on average 10 or so articles. But if we're writing a grant, I may be reviewing 200. Or if I'm writing a paper, it may be 50. So it just depends on what's happening in the week. So 10 to 15 articles a week would be an average.
Q. And in each one of those articles are there a

number of citations at the end?
A. Yes, there are.
Q. So if you wanted to know how many articles we might have had to refer to in any given year, if you wanted to think back ten years ago or five years ago, would you have to multiply the number of articles you looked at times the number of citations?
A. There would be --
You know, it depends on how big the article is. There would be 30 or so citations, but some of them would be repetitious, as we heard today, they won't always be new. But there will be some that will be different.
Q. Now some of the medical articles -- I don't mean to be impertinent to a doctor -- but are some of them well informed and some not very well informed?
A. Oh, there's all sizes and shapes and forms. There are some that are better than others.
Q. Do you memorize the articles?
A. Gosh, no.
Q. Now with regard to the knowledge about a given

product, who is it that would have the most information? Who sits at the hub of the wheel of information regarding a product?

MR. BERNICK: Your Honor, I object, A, it's

argumentative, and B, there's no foundation for it. Who is it that we're talking about? What product is it we're talking about? Or what experience does the witness have with the knowledge of the company that makes it --

THE COURT: Well I don't think he mentioned companies, but maybe you can rephrase your question.

BY MR. CIRESI:

Q. Let's just take a given drug company. Who knows more about a given drug put out by a drug company, the company itself or some doctor who may be writing about it in the medical literature?

A. The company has to know the most about their product. I mean they're responsible to a lot of different people. They're responsible, first of all, to the Food and Drug Administration, secondly, they're responsible to me as a prescribing physician, but more importantly they're responsible to the consumer and they have to prove that their drug is safe and effective, and they are the repository of the world's information about that product, whatever the product might be. And that's the responsibility of a company, that's what they should be doing.

Q. Now if someone, an investigator --

And are doctors called investigators when they

look at a given drug --

A. Yes, they are.

Q. -- or a product, in this case cigarettes?

A. Right.

Q. Now if an investigator is looking at the issue of smoking and health in cigarettes, would that investigator have more funds to apply to that than the combined cigarette industry?

A. No.

MR. BERNICK: Your Honor, this is all argumentative.

THE COURT: I'll let the answer stand.

Q. Who would have more personnel -- scientists, doctors, Ph.D.'s -- to devote to the investigation into the issue of health of a given product, an individual investigator or a company?

A. The company obviously does.

Q. Who would have more laboratories to utilize in looking at that issue, an individual investigator or the company who puts the product into the stream of commerce?

A. The company does.

Q. Now doctor, you've talked about some medical articles. I'd like to direct your attention to JAMA, the Journal of the American Medical Association.

That's a peer-reviewed article?
A. That's correct.
Q. Is it in the first tier of articles?
A. Yes, it is.
Q. And in July of 1995 did JAMA run a series of articles regarding smoking and health and industry documents?
A. Yes, it did.
Q. And did you review those documents -- those articles?
A. I did.
Q. And have you relied on them?
A. Yes.
Q. Do you consider them authoritative?
A. Absolutely.
MR. CIRESI: May I approach, Your Honor?
THE COURT: Yes.
(Documents handed to the witness.)
THE WITNESS: Thank you.
Q. If you could turn, first, to Exhibit 18989, --
A. Okay.
Q. -- and is that one of the articles that was in JAMA in the July 19th, 1995 issue?
A. Yes. It's an editorial, "The Brown and Williamson Documents, Where Do We Go From Here?"

MR. CIRESI: Your Honor, we'd offer under 803(18) Exhibit 18989.
MR. BERNICK: I don't believe, Your Honor, that adequate foundation has been laid. The court is familiar with the background of these articles. I don't believe the witness has testified to the scientific methodology, that it is a reliable or authoritative methodology that was used in the creation of these articles. The articles simply recite company documents. The court is familiar and the record has been made concerning the circumstances surrounding the creation of these articles. They are hearsay. They create three problems. They effectively usurp the function of the jury, nor has this witness established that he has looked into the predicates, the facts that are recited in those articles, to determine whether they have reliability and accuracy based upon independent investigation of all of the documents that have been produced here as opposed to what he has received from counsel. So we have a series of objections to the article, Your Honor.
THE COURT: 18989 will be received into evidence under 803.
BY MR. CIRESI:

Q. First of all, I'd just like to go to the title, "The Brown and Williamson Documents, Where Do We Go

From Here?"
MR. BERNICK: Your Honor, I have a -- I have an objection to displaying the document. This is an expert witness. He's called to the stand. I don't believe that under the rules it's permissible simply to read from a document in order to bolster the testimony of a direct -- of an expert on direct examination. To be used on cross, he can refer to the fact studies have been done, but I don't think it's an appropriate use of a learned treatise, which is, as I understand it, the basis under which this is coming into evidence. So it's an inappropriate use of the document that has been cited on direct examination.
THE COURT: I'm not just sure we've just had a recitation. Did you finish your question, counsel?
MR. CIRESI: I haven't even asked the question.
THE COURT: Okay. Why don't you ask the question and we'll see what the question is.
MR. BERNICK: He's displaying the document. That's the reason --

THE COURT: We've been displaying the documents for five days, counsel, under 803.
MR. CIRESI: Thank you.
THE COURT: Proceed.
MR. CIRESI: Thank you, Your Honor.
BY MR. CIRESI:
Q. Again, the title was "The Brown and Williamson Documents, Where Do We Go From Here?"
A. That's correct.
Q. If you go to column two --
A. Can you focus that a little bit?
Q. That's what I'm going to try to do.
Do you see that now?
A. I can, yes.
Q. "The documents show:"
First bullet point, "that research conducted by tobacco companies into the deleterious health effects of tobacco were often more advanced and sophisticated than studies by the medical community." Now --
MR. BERNICK: I have the same objection, Your Honor, and I don't know that there has been a ruling on the objection. The question has now been put, so I still have the same objection.
THE COURT: The objection is overruled.
MR. BERNICK: Okay. Can I have a

continuing objection, Your Honor, to examination --
THE COURT: With respect to this full document?
MR. BERNICK: With respect to the articles. I think there are a clip of articles. That's correct, Your Honor.
THE COURT: Why don't we take one at a

time.
MR. BERNICK: Okay.
THE COURT: Okay.
BY MR. CIRESI:
Q. Now sir, with regard to the first bullet point, was that consistent with what you found with respect to your review of the Brown & Williamson documents in this case?
A. That's correct. But it extended to all the rest of them, too. I mean they were all doing the same type of research. It was broad. It covered all of the companies' documents that I reviewed.
Q. All right. So it was -- it was consistent, then, with the documents you reviewed in this case with respect to all of the defendants.
A. That's correct.
Q. With regard to the second bullet point, "that executives at B&W knew early on that tobacco use was

harmful and that nicotine was addictive and debated whether to make the research public," was that consistent with what you found when you reviewed those documents?
A. Yes, it was.
Q. Was it consistent with what you found with respect to the balance of the defendants?
A. All of them, yes. There was evidence of that in all the documents that I reviewed.
Q. The third bullet point, "that the industry decided to conceal the truth from the public," was that consistent with what you found when you reviewed the Brown & Williamson documents?
A. Yes, it was.
Q. Was it consistent with what you found when you reviewed the documents of the other defendants in this case?
A. It was a common theme across all of the companies.
Q. Let me direct your attention, then, down to the bullet point that is now on the screen, "that despite their knowledge to the contrary, the industry's public position was, paren, and continues to be, close paren, that the link between smoking and health was not proven, that they were dedicated to

determining whether there was such a link and revealing this to the public, and that nicotine was not addictive.
"We think that these documents and the analyses merit the careful attention of our readership...."
By the way, the readership are the doctors of America?
A. Yes, that would be the common readership of the Journal of the American Medical Association.
THE COURT: Excuse me, counsel. We're having trouble with your microphone, if you can adjust that.

MR. CIRESI: Can you hear now?
THE COURT: Where is our expert?
MR. CIRESI: They're both on.
THE COURT: Thank you.
BY MR. CIRESI:
Q. Do doctors from around the world read the Journal of the American Medical Association?
A. Yes, they do. Yes.
Q. Let me start again then. "We think that these documents and analyses merit the careful attention of our readership because they provide massive, detailed, and damning evidence of the tactics of the tobacco industry. They show us how this industry has

managed to spread confusion by expressing, manipulating, and distorting the scientific record. They also make clear how the tobacco industry has been able to avoid paying a penny in damages and how it has remained -- managed to remain hugely profitable from the sale of a substance long known by scientists and physicians to be lethal. We hope that publication of the articles will encourage all our readers to become even more active in the campaign against tobacco."
Now sir, in your review of the Brown & Williamson documents, did you find what the Journal of the American Medical Association found?
A. I did.
Q. Did you find that with respect to all of the defendants?
A. Yes. And I guess it's --
If these people had seen even one-tenth of what I've seen, this statements would have been even more. They had a very few documents to review, and I've reviewed many more than they've seen.
Q. Can you direct your attention over to the next page of this article, 18989, and specifically that portion which refers to "The Articles."
Quote, "These five articles provide a careful

analysis of the documents. They detail the sharp disparities between the tobacco industry's private knowledge, developed by their own research during more than 30 years, and their public stance.
"The articles show the effect of the tobacco company tactics, long suspected, has been to obfuscate the conclusions of scientists, to confuse the public, and to assist greatly the tobacco industry in its successful efforts to influence the political process in its favor. The surgeon general's report of 1964 would have been far more decisive in its conclusions and recommendations had the evidence available to the executives of B&W been available to the surgeon general's community -- committee. We can only speculate how many lives would have been saved and how much suffering would have been averted."

Did you find from your review of the Brown & Williamson documents that that was consistent with your opinions?
A. Absolutely.
Q. Did you find it was consistent with your opinions with respect to the balance of this industry?
A. It was. And I guess the one quote that I

remember so well is "We need to develop a strategy to create doubt without denying it." It -- it seemed so cynical.
Q. Doctor, can you turn to the next --
MR. BERNICK: Your Honor, I move to strike that statement. It is an inappropriate statement coming from an expert witness in this case. The jury can decide the motives of the parties and the conduct and its impact.
THE COURT: Well it is -- it is not responsive to the question.
MR. BERNICK: Your Honor, will it be stricken?
THE COURT: The last answer will be stricken, yes.
MR. BERNICK: Okay.
MR. CIRESI: Talking about the last phrase, Your Honor?
THE COURT: The very last sentence.
MR. CIRESI: Okay.
BY MR. CIRESI:
Q. Over on the other column, "Why Are We Publishing the Articles?
"For many decades, the mission of the American Medical Association has been to promote the science

and art of medicine in betterment of public health. To remain silent about the B&W papers would be to deny our mission. Quite simply, we are publishing this research because it is the right thing to do.
"Analysis of these papers suggests that we would have seen a very different picture of tobacco use today if the group knowing the most about the dangers of tobacco use, the industry, had been honest with its customers. The documents and the JAMA articles show us in a stark way that some of those who speak for the tobacco industry dissemble, distort, and deceive, despite the fact that the industry's own research is consistent with the scientific community's conclusion that continued use of their product will endanger the lives and health of the public at home and abroad. The industry continues to use the same tactics: even now, it is suing the government over the release of the Environmental Protection Agency report that has classified environmental tobacco smoke as a Group A carcinogen. It is spending vast amounts of money to overturn anti-smoking laws.

"These papers show us how little the tobacco industry is to be trusted when they speak on health issues and that the evidence they put before the

regulatory and legislative bodies at the national, state and local level is highly suspect."

Do those statements comport with what you found when you reviewed the Brown & Williamson documents?

A. Yes, they do.

Q. Do those statements comport with what you found when you reviewed the documents of the other defendants in this case?

A. It was a recurring theme throughout.

Q. Can you direct your attention to Exhibit 18983, which is one of the articles in the JAMA July 19th, 1995 issue.

A. Okay.

MR. CIRESI: This is Exhibit 18983, and we would offer that under 803(18), Your Honor.

MR. BERNICK: Your Honor, we object under Rule 403. We object because the requisites of 18 -- 803 haven't been met. We further object because, as has just been read to the jury, these articles were written with no scientific purpose and on the basis of no scientific record but in order to advocate a position that was being assumed by the American Medical Association at that time for political and legislative purposes. We feel that the jury in this case should have the opportunity to decide the issues

on their own with the benefit of a complete record, --

THE COURT: Counsel, --

MR. BERNICK: -- and I feel those issues shouldn't be addressed through experts.

THE COURT: -- could you limit yourself to legal objections, please.

MR. BERNICK: Sure. That is our legal objection. And I also want to incorporate by reference the record that was made in that regard before Your Honor previously.

THE COURT: Thank you.

Counsel, I think you'll have to lay foundation under 803.

BY MR. CIRESI:

Q. Again, this is one of the articles that was in the July 19th, 1995 JAMA article?

A. That's correct.

Q. And you've read it?

A. Yes.

Q. And you rely on this article as authoritative in the medical literature?

A. Yes.

MR. CIRESI: Your Honor, we'd offer 19 -- 18983, which is a part of the JAMA July 19th, 1995

issue.
MR. BERNICK: Same objection. I'm also prepared to inquire of the witness on voir dire concerning this article as well as any of the rest of these articles.
THE COURT: Court will receive 18983 under 803.18.
BY MR. CIRESI:
Q. First of all, for Exhibit 18983, the title is "Looking Through a Keyhole at the Tobacco Industry, The Brown and Williamson Documents." This is the one that we've just referred to, sir?
A. Yes, it is.
Q. I'd like to direct your attention to the conclusions statement.
"These documents provide our first look at the inner workings of the tobacco industry during the crucial period in which the scientific case that smoking is addictive and kills smokers solidified. The documents show a sophisticated legal and public relations strategy to avoid liability for the diseases induced by tobacco use. The documents show that lawyers steered scientists away from particular research avenues, which is inconsistent with the company's purported disbelief in the causation and

addiction claims; if the company had been genuinely unconvinced by the causation and addiction hypotheses, then it should have have had no concern that new research would provide ammunition for the enemy. On the contrary, the conclusion -- the documents show that B&W and B.A.T recognized for more than 30 years that nicotine is addictive and that tobacco smoke is, quote, biologically, end of quote, active, paren, e.g., carcinogenic, close paren."
Is that consistent with the conclusions you drew based on your review of the Brown & Williamson documents?
A. Yes, it is.
Q. Is it consistent with the conclusions that you drew with respect to the documents of the other defendants in this case?
A. Absolutely.
MR. BERNICK: I omitted to ask for the same continuing objection with regard to this article. Do I have that same objection?
THE COURT: Yes, you have the same continuing objection, counsel.
BY MR. CIRESI:
Q. I'd like to direct your attention to the next page of this particular article, which is entitled

"NICOTINE AND ADDICTION: LOW TAR/LOW-NICOTINE CIGARETTES AND THE PHENOMENON OF SMOKER COMPENSATION." Do you see that there, sir?

A. Yes.
Q. And specifically to the summary portion of that page.
A. Yes.
Q. I'll have to read it because we won't get it all on the overhead.
"Summary: Smokers compensation for the lack of nicotine in low tar/low-nicotine cigarettes by puffing more frequently and by increasing the depth or duration of smoke inhalation, by smoking more cigarettes per day, and by smoking cigarettes to a shorter butt length. This means that smokers of low tar/low-nicotine cigarettes are exposed to more tar and other harmful chemicals than would be indicated by an analysis of the cigarette smoke. This phenomenon, known as smoker compensation, was acknowledged internally in the tobacco industry by the early 1970s but was not appreciated in the scientific community until the 1980s."
Is that consistent with what you found by your review of the documents?
A. Yes, it is.

Q. Was it consistent with what you found with regard to your review of the documents of other defendants in this case?
A. Yes, it was.
Q. If you could now turn to the "Nicotine and Addiction" article in the July 19th, 1995 JAMA issue. It's Exhibit 19984.
A. Okay.
Q. I'm sorry, 18984. Thank you.
Is this one of the articles in the JAMA issue that you read, sir?
A. Yes, it is.
Q. And do you consider this an authoritative article?
A. Absolutely.
Q. Did you rely on it with respect to your review of the documents and your review of materials for this case?
A. Yes, I did.
MR. CIRESI: Your Honor, we'd offer Exhibit 19984 under -- excuse me, 18984 under 803(18).
MR. BERNICK: I have the same objections as before, Your Honor. Additionally, there are references here to privileged documents, and I'd also point out to the court and further object on the

grounds that we just spent two days on direct examination concerning nicotine and addiction, and then the cross-examination --
THE COURT: Counsel, counsel, excuse me, are you making a legal objection?
MR. BERNICK: Yes. I'm sorry.
THE COURT: Just state your legal objection, please.

MR. BERNICK: Okay. The legal objection is that we are simply reiterating what already was stated on direct examination, and we'd object that it's improper redirect examination, in addition to all the other objections that I've stated concerning these articles, both before the jury and previously.

THE COURT: Court will receive 18984 under 803(18).

BY MR. CIRESI:

Q. First of all, the title is "Nicotine and Addiction, The Brown and Williamson Documents." I'd like to direct your attention to the first column. "OF THE THOUSANDS of chemicals in tobacco smoke, nicotine may be the most important. Nicotine makes tobacco addictive and largely explains why people use tobacco products. The addictiveness of nicotine keeps people smoking long enough and heavily enough

for tobacco smoke to cause illness and death."

Is that consistent with what you found in the defendant Brown & Williamson's documents, sir?

A. Yes, it is.

Q. Is it consistent with what you found with respect to the balance of these defendants?

A. Yes, it is.

Q. Can you turn to page 232 of this article, "Nicotine and Addiction," in the conclusion. I'd like you to direct your attention down to the portion right here, "The contract work...."

A. Okay.

Q. See that in the last --

A. Yes, I do.

A. -- column?

"The contract work and the internal company research projects on nicotine reviewed herein have any been published in the scientific literature. Often, the work was well ahead of its time. The Battelle work in Geneva was at the cutting edge of nicotine pharmacology. The work on smoker compensation in the 1970s preceded the main published reports from the general scientific community by several years."

Was that consistent with the conclusions you

drew based on your review of the defendant Brown & Williamson and B.A.T documents?

A. Yes, it is.

Q. Is it consistent with the conclusions you drew based on your review of the documents of the other defendants in this case?

A. Yes, it is.

Q. Doctor, in reviewing the documents in this case, did you need to sign a protective order?

A. Yes, I did.

Q. Were the documents all marked "CONFIDENTIAL?

A. "CONFIDENTIAL" or "SECRET."

MR. BERNICK: Your Honor, I object to this.

I don't know what relevance this has to the determinations that were made in orders that were issued by this court.

THE COURT: Sustained.

MR. CIRESI: Your Honor, it's preliminary to a question with respect to an area that was opened up by Mr. Bernick.

THE COURT: All right, counsel, proceed.

BY MR. CIRESI:

Q. Were you required to keep the documents locked?

A. Yes.

Q. Could you talk to --

MR. BERNICK: Your Honor, these are all procedures that were adopted by the court. I object. This is an improper line of inquiry.

THE COURT: All right.

MR. CIRESI: It is preliminary, Your Honor. I have a couple questions.

MR. BERNICK: Well let's --

MR. CIRESI: It's preliminary.

MR. BERNICK: -- get to the question.

THE COURT: Counsel, counsel, please do not interrupt. Be seated, please.

May I inquire as to what direction you're going, counsel?

MR. CIRESI: Yes, Your Honor. Documents were introduced by Mr. Bernick with regard to Mr. Benowitz -- Dr. Benowitz and what Dr. Benowitz felt and what Dr. Benowitz's opinions were, and I'm going to that issue with regard to this information.

THE COURT: And I'm not sure how you're getting there, but I'll give you some leeway. And I'll allow you to strike if -- if it doesn't appear to be appropriate.

BY MR. CIRESI:

Q. Doctor, under the terms of the protective order, were you allowed to talk to Dr. Benowitz about the

documents of these defendants?

A. No, sir.

MR. BERNICK: Move to strike, Your Honor. There has been no predicate showing the information that he has seen is different from what is in the open scientific literature and available to Dr. Benowitz.

THE COURT: Counsel, do you have a legal objection?

MR. BERNICK: So I think that the question is an improper question. It suggests that somehow there is a reason why the court's protective orders have obstructed this witness's inquiry --

THE COURT: Counsel, do you have a legal objection?

MR. BERNICK: Yes.

THE COURT: And would you state it, please.

MR. BERNICK: Rule 4 -- Rule 403.

THE COURT: Overruled.
BY MR. CIRESI:
Q. The documents that you reviewed, did they go beyond what had been revealed in the scientific literature?
A. Absolutely.
Q. Did you want to share that information, or would

you want to share that information with your colleagues in the medical community?
A. Absolutely.
MR. BERNICK: Objection, argumentative and leading.
THE COURT: It is argumentative. Sustained.
BY MR. CIRESI:
Q. Have you been able to share that information with your colleagues in the scientific community?
A. No, I have not.
Q. Do you have Exhibit GI158, which is an article by Dr. Benowitz, "Pharmacological Aspects of Cigarette Smoking and Addiction? It's in the defendants' books.
A. Do you know what the number is?
Q. And I do not know the tab number. Mr. Bernick may be able to help us with that.
MR. BERNICK: Volume one.
MR. CIRESI: Volume one, tab ten. Thank you very much.
A. Okay.
Q. Turn, please, to page 1321.
A. Okay.
Q. This was an article in the New England Journal

of Medicine?
A. Yes, 1988.
Q. If you could go to page 1318 first.
A. Okay.
MR. BERNICK: Your Honor, can we -- we would object to displaying a learned treatise to bolster the witness's testimony on direct examination. Don't think it's a proper use of a learned treatise.
THE COURT: Proceed, counsel.
MR. CIRESI: Thank you, Your Honor.
BY MR. CIRESI:
Q. In column one, about five lines down, you see where it starts "Nearly 30 percent...?"
A. Yes.
Q. "Nearly 30 percent of adult Americans smoke despite, in most cases, a desire to quit and despite common knowledge of the health hazards. Their failure to quit smoking is attributable in large part to the addictive properties of nicotine."
Is that consistent with what you have found in your practice, doctor?
A. Yes, it is.

Q. Consistent with what you found in defendants documents?

A. Yes.
Q. Can you go, please, to page 1321.
A. Okay.
Q. And specifically to the portion which is entitled "Pharmacokinetics and Nicotine Metabolism," which is in the lower part of the right-hand column. Do you see that?
A. Yes.
Q. "Smoking is a unique form of systemic drug administration, in that nicotine enters the circulation through the pulmonary rather than the portal or systemic venous circulation."
Is that consistent with what you found in the defendants' documents?
A. Yes, it is.
MR. BERNICK: Your Honor, I have two objections: one, this is leading because he's stating a proposition and asking the witness whether he agrees, so it's a leading question; number two, this is simply a reiteration of the direct examination of this witness. I don't believe it's proper redirect examination of the witness.
THE COURT: I believe it was covered on cross, and I believe it is appropriate to redirect. Overruled.

BY MR. CIRESI:
Q. Do you recall at the very end of your cross-examination Mr. Bernick was asking you questions regarding an inhaler which you said really wasn't an inhaler?
A. Yes.
Q. And there was a discussion about whether or not the inhaler would mimic the mechanism of inhaling cigarette smoke?
A. Yes.
Q. Okay. Now with regard to this statement by Dr. Benowitz, then, does this state the mechanism of inhalation of cigarette smoke?
A. Yes.
Q. And in this case, are we talking about cigarette smoke or inhalers?
A. This is cigarette smoke.
Q. Can you turn to the portion at the end -- or excuse me, at page 1325.
A. Okay.
Q. And on the left-hand column, if you will, sir.
A. Okay.
Q. Do you see down there, the last full paragraph starts with "Many features...?"
A. Yes.

Q. And then if you move down that paragraph, gets to the point where it says "One third to two thirds of adolescents...." It's about halfway down.
A. Yes, I see that.
Q. Okay. "One third to two thirds of the adolescents that smoke two or more cigarettes become habitual cigarette smokers. After smoking begins, cigarette consumption gradually escalates over several years -- a pattern similar to those observed in heroin use. Third, once a person becomes a habitual smoker, it is difficult to stop. When smokers try to quit, the relapse rate is high, averaging 70 percent in three months."
Now sir, is that what you found in your clinical practice?
A. Yes. The numbers may vary --
MR. BERNICK: Your Honor, I object.
THE COURT: Just a moment.
THE WITNESS: Sorry.
MR. BERNICK: The same objection, Your Honor. A, it's leading, B, it's repetitive direct examination.
THE COURT: Overruled. You may answer that.
A. The numbers may vary a little bit, but that is

the range we talk about in talking about people who start smoking. And people who start smoking are children, they're the ones who start.
Q. Now the article goes on to state, "This relapse rate is similar to that observed in heroin addicts and alcoholics." I just want to deal with alcohol.
How many people in your experience become addicted to alcohol?
A. Alcohol users?
Q. Yes.
MR. BERNICK: Objection, exceeds the scope of cross-examination.
THE COURT: Well I believe we got into a general area of addiction that relates to other products. I didn't want that pushed, I don't want this pushed very far either.
MR. CIRESI: I'm not going to push it far, Your Honor.
THE COURT: Okay, go ahead.
A. If you take all -- all people who drink, which is a very large number of people, about seven percent in our experience, at least in our clinic, would be classified as being alcoholics. So it's a very small percentage compared to the numbers of people who become dependent on -- on nicotine when it's

delivered by cigarettes.
Q. Okay. And how many people in your clinical experience become addicted or dependent on cigarettes?

A. The vast majority who use them regularly. And the numbers here are close, but I think -- again, the studies might differ in one place to the next, but a smoker who smokes regularly, over 90 percent or so are dependent on cigarettes.
Q. Mr. Bernick asked you some questions regarding caffeine and whether it was a drug of dependence.
Does DSM IV or the World Health Organization, which is referred to as WHO, W-H-0, do they classify caffeine as a drug of dependence?
A. No.
MR. CIRESI: Thank you, doctor, I have no further questions.

RECROSS-EXAMINATION
BY MR. BERNICK:
Q. I take it with regard to Dr. Benowitz, there are some parts of the things that Dr. Benowitz has written that you're prepared to endorse and reiterate on redirect examination, there are parts of what Dr. Benowitz and Dr. Henningfield and Dr. Hughes and Dr. Horn have to say that you're not prepared to accept; is that right?
MR. CIRESI: Objection to the form of the question. It's argumentative.
THE COURT: It is argumentative, counsel.
BY MR. BERNICK:
Q. Well let me ask you this, Dr. Hurt. You were asked a little bit about the numbers of articles that had been published -- and maybe I'll prop this up just one more time -- the numbers of articles that have been published over time in the medical literature, and I think your answers were answers in the hundreds of thousands, and they related to just general publications in the medical literature; is that correct?
A. I think that was the question.
Q. In point of fact, when it comes to the area of tobacco smoking-and-health research, isn't it a fact

that in that particular area literally almost a hundred thousand publications have already occurred in the area of smoking and health? Isn't that correct?
A. There's been a large number. I -- you know, to quote a few years ago, it would be over 50,000 articles. I'm sure it's going up as time goes on.
Q. Well in point of fact in 1989 -- '89 -- '88, we're talking about a trend that had already reached

57,000 publications; right?
A. Could have.
Q. Okay.
A. That's kind of as I said -- there are people that try to keep track of these. But a large number.
Q. And isn't it true that in contrast to what you'd have when you have a drug company that's researching a new product that's going to come out in the marketplace, the issue of tobacco is being researched by people who have absolutely no funding relationship with the tobacco industry at all; correct?
A. I'd say.
Q. Like Dr. Henningfield; true?
A. True what?
Q. He has no funding relationship with the tobacco industry?

A. Probably not, no.
Q. In fact, he's been an expert witness against the tobacco industry; correct?
A. Could be.
Q. Dr. Henningfield has been an expert witness against the tobacco companies; has he not?
A. That's the one you just said I think. So Henningfied has been, probably, yes.
Q. Okay. And you've done research that you've published in the literature relating to smoking and health. No tobacco company controls that research; do they?
A. No.
Q. In point of fact, if you take the 57,000 articles that were in existence even by the end of the 1980s, can you even tell us that more than five or six thousand of those articles at most had some funding relationship with the tobacco industry?
A. I don't know, honestly.
Q. Don't know.
So when it comes to the vast literature that's now been mounted by independent scientists and reviewed by the Surgeon General of the United States and literally over a score of volumes of the Surgeon General's report, are you here to tell us that

somehow people outside the tobacco industry still don't know what tobacco's all about?
A. In the issue of free base pH -- free base nicotine as manipulated by pH, Drs. Benowitz and Henningfied will be really surprised if I ever get a chance to talk to them about the internal documents. They do not know about this. I couldn't ask them about it, couldn't inquire. I would love to write an article with them about what I've learned about your industry and what it's done with pH manipulation and nicotine. I would love to do that.
Q. And in point of fact, you told the jury on cross-examination that when it comes to doing that comparison in any area between what is in our

documents and what is in the scientific literature, you haven't gone ahead to go ahead and do that comparison and see whether there's something new; have you?
A. In the article we just talked about from Benowitz -- actually it was in the Brown & -- Brown & Williamson articles, the main article that was cited about low tar/low nicotine was written in 1980 by Mike Russell, and the next article about that had to do with Benowitz in '83. I mean these are -- these are articles that are that recent, but the -- what

was inside the documents goes back 15 or 20 years before that. I mean it's just --
And the things about pH manipulation, free base nicotine, are things that -- that -- that they just do not know about.
Q. Dr. Hurt, did I ask you on cross-examination whether in fact you had taken the time when you talked about what was in our documents internally, the research that was reflected there and the ideas about nicotine, did you take the time to go look at the scientific literature and see -- and the publication on the same subject statement to see if they were any different, and was your answer as indicated here at page 1531 of the transcript:
"Answer: "I did not do" --
MR. CIRESI: Your Honor -- excuse me, counsel. Your Honor, can we have an appropriate procedure with regard to asking questions? This is an inappropriate use of prior deposition or a deposition. I don't know what it is.
THE COURT: The objection is sustained. It's not the proper use of prior testimony, counsel.
Q. Was your answer to that question, Dr. Hurt --
THE COURT: Counsel, did you understand my ruling?

MR. BERNICK: I guess I'm afraid I did not.
THE COURT: Okay. The objection was sustained. It's an improper use of prior testimony.
BY MR. BERNICK:
Q. Was your testimony in this case, Dr. Hurt, that you had not in fact done that comparison between the internal documents and the publications in the scientific literature? Was that your testimony on cross-examination last Friday?
MR. CIRESI: Objection to the form. He still has cited him to a transcript page. It's inappropriate.
MR. BERNICK: At page 1530.
THE COURT: You may answer that question.
Q. Was that your testimony?
A. I think what I said was that I didn't -- I did not do a side-by-side comparison. But again, you know, you have to look at what --
Q. I think that's an answer to the question. You

did not do a side-by-side comparison; did you, doctor?
A. I think that's what I said.
Q. Okay. Now when it comes to the contribution --
MR. CIRESI: Your Honor.
THE COURT: Just a moment, please, counsel.

MR. CIRESI: Your Honor, I'm going to object to the last question because it is an inappropriate use of prior testimony. It was not a complete answer that he just gave; it's selecting out portions of answers.
THE COURT: Okay. Well I'll allow you to redirect on that --
MR. CIRESI: All right.
THE COURT: -- particular issue only.
BY MR. BERNICK:
Q. Now Dr. Hurt, when it comes to the articles that you've now read and the science that you've now taken a look at and explained to the jury -- let's deal with the JAMA articles that you cited in talking with Mr. Ciresi.
I think that you've told us in your examination before that there are standards for the conduct of scientific research; correct?
A. Yes.
Q. Okay. And those standards in part call out that when scientific research is done, that's (referring to a word written on the write board) something that you want to avoid; true? Bias.
A. You want to avoid it to the extent you can avoid it, sure.

Q. Okay. And part of avoiding bias, I think you told us in this case, is making sure that when you gather data, the data is not biased. Isn't that part of scientific process and procedure?
A. Correct.
Q. Okay. And that when the data is analyzed, you don't just present one side or one part of the data, you present all of the data so it can be understood fairly and completely. Is that part of the scientific process in which you were trained and have practiced?
A. You never can present all of the data, so someone has to decide when they write an article what to include in the article. You never can present all of the data for any -- practically any research project I've ever done. There's too much.
Q. Right.
A. So someone has to decide -- the investigator has to decide what to include in that article.
Q. Okay.
A. And that's the way the process works.
Q. And it's critical in making that decision that you end up with a fair and representative presentation of the data; correct?

A. To the best of your ability.

Q. Okay. And in fact on direct examination you went to pains to point out that the documents that you were explaining and were pointing to you thought were representative documents; correct?
A. Which ones?
Q. Well I can give you a whole series of statements.
A. Well I mean I'm just trying to figure out which ones I was talking about.
Q. Well I think virtually in all cases, when you were shown a document by Mr. Ciresi on direct examination, didn't you point out to the jury that those documents were representative of what it is that you had looked at? Weren't those your words?
A. As far as the documents were concerned?
Q. Yes.
A. Yes.
Q. Okay. And it's important for them to be representative so that you wouldn't be talking to the jury about a biased collection; correct?
A. Correct.
Q. Okay. Now in point of fact, when we get to the JAMA articles that you have pointed out to the court, let's talk about the input to the JAMA articles, what went into them, what documents went into them. Are

you with me?
A. Uh-huh.
Q. In point of fact, we've already seen from the JAMA articles that one of the objectives of JAMA -- Has JAMA taken a position on the smoking-and-health issue against cigarettes; that is, that cigarettes should not be a part of our culture? Isn't that their position as they have stated publicly?
A. JAMA, first of all, is the journal, and --
Q. Of the American Medical Association.
A. -- I think in the last part of that, in fact the editorial speaks to that issue as far as what these articles show, what the internal documents that they had a chance to review show, and I'd have to go back and look to see what the board of trustees from the AMA actually said in the editorial. There was a series of recommendations that they made in the editorial, which was the last of the articles.
Q. Well in point of fact, what the people at JAMA said in the article that was up here a few moments ago was this --
MR. CIRESI: Excuse me, Your Honor. Counsel, I believe, stated that the article said that the cigarettes should be banned. If we could go to

that portion.

MR. BERNICK: We are going to the portion that Mr. Ciresi read right here, Dr. Hurt.

MR. CIRESI: Well Your Honor --

THE COURT: Just a moment, please. Counsel, do you have an objection here?

MR. CIRESI: I do. Counsel is testifying. He states something and then he leaves it. We should go to that portion of the document which states what he says or we should follow correct procedure and put the document up.

THE COURT: Okay. Can we get to that portion of the document, counsel?

MR. BERNICK: What I asked is what the -- what the witness understood to be the position of the American Medical Association. He didn't tell me what the position was, so I'm now going to go to the article and what it states its purpose is, --

THE COURT: All right.

MR. BERNICK: -- Your Honor.

BY MR. BERNICK:

Q. Isn't the stated purpose as set forth by the American Medical Association itself, "We hope that publication of the articles will encourage all our readers to become even more active in the campaign

against tobacco?" Isn't that the purpose of these publications?

A. No. I think the purpose of the publications is what they stated, which is to get out information to their readership that has heretofore been secret, that's been buried in your companies' files for decades. You all have known about the addictive nature of nicotine, you've known about the health risk to -- to smoking, and you just forgot to tell anybody else. And not only that, you went beyond that by creating a public relations campaign that created doubt which affects the patients that I deal with because they're dependent upon this substance.

So no, I don't -- I think the purpose of these was to get information out to the readership of the journal.

Q. So that's not the purpose as stated by the American Medical Association?

A. This is only one paragraph in the entire --

You have to go back and look at the whole -- the whole series of articles, and I think we've gone through that, that the purpose of this is to provide the readership with information that heretofore they had not seen.

Q. That's the purpose --

That's the paragraph that Mr. Ciresi had you read. And you ascribed to it; did you not?

A. That may be true. But I'm telling you that the purpose -- if you go back and read the purpose of these series of articles, it goes well beyond that.

That's one of the recommendations that's in --
You need to look at all the recommendations at the end of the editorial in order to understand what it was that they were recommending to their readership. The purpose of these articles was to get information to the readership about what your company knew and when it knew it. That was the purpose.
Q. In order to further the campaign against tobacco. True or not?
MR. CIRESI: Excuse me, Your Honor, the witness did not finish his answer. Counsel is interrupting.
THE COURT: Okay. You did interrupt the witness.
MR. BERNICK: Oh, I'm sorry.
THE COURT: Please do not do that, counsel.
MR. BERNICK: I'm sorry.
A. I don't know what the question was.
Q. With the ultimate purpose of furthering the campaign against tobacco, that's what the American

Medical Association wants; correct?
A. You have to look at all of the recommendations from the board of trustees, which was signed by all of them in the editorial that has to do with this. That is one small sentence. The recommendations are very clear. There's one, two, three -- I think there's about 10 or 12 of them in the last two pages of the editorial. That would be the place where we'd know what the board of trustees would recommend to its readership.
Q. Okay. So that's not a recommendation?
A. Usually when I have a recommendation to make I say "I would recommend that...." They say "We hope that the publication...." That's a hope, that is not necessarily a recommendation. Absolutely not. You need to look at their recommendations, which there's a list of them at the end of this article.
Q. Isn't it true that the lead author of these articles is named Stanton Glantz?
A. He's the lead author of one of the articles. There's two of them. He's not the lead author on all of them.
Q. And isn't it true that he has gone on record publicly stating that representatives of tobacco companies are cockroaches?

MR. CIRESI: Well, Your Honor, if they want to bring Mr. Glantz in -- this is irrelevant.
MR. BERNICK: It's absolutely relevant.
THE COURT: Counsel, counsel, just a moment, please.
MR. BERNICK: Sure.
MR. CIRESI: Objection.
THE COURT: Do you have a objection?
MR. CIRESI: Relevance.
THE COURT: Sustained.

BY MR. BERNICK:
Q. Are you familiar with Dr. Glantz's background?
A. I know of him. I know of his work, yes.
Q. Okay.
A. "Background" means a lot. I don't know what you mean by "background."
Q. Are you familiar with the public position that Dr. Glantz has taken with regard to the campaign against tobacco?
MR. CIRESI: Objection, relevance.
THE COURT: Sustained.
BY MR. BERNICK:
Q. Do you believe that this publication is untainted by the political aspirations and views of the principal authors?

MR. CIRESI: Objection, argumentative and irrelevant.
THE COURT: It's argumentative, counsel.
BY MR. BERNICK:
Q. I'll put it more neutrally. Do you believe --
THE COURT: Please, counsel, state a proper question, please.
MR. BERNICK: Right.
BY MR. BERNICK:
Q. Are you here representing to this jury that the people who put these articles together are not influenced by the biases that they've expressed publicly concerning tobacco? Do you believe that and are you representing that to this jury?
MR. CIRESI: I'm going to object to it, it's irrelevant, improper question, it's argumentative.
THE COURT: It is argumentative. I'm going to allow you to answer it if you wish.
A. The display of these articles was in my opinion as fair as it could have been for your companies. It could have been a lot worse had they known all the stuff that I know. This is only the tip of the iceberg. The documents that I see -- have seen go beyond anything that these people have seen, period.

They tried to display it in the best light that they could as far as any comparisons. They did some of your comparisons as far as what was known in the public literature, what was known in the scientific literature and what was known in the tobacco companies. So they did that, I think, to the best of their ability. And I think had there been more knowledge about this, had there been more documents that had been available to them, this would have been a lot worse.
MR. BERNICK: Your Honor, can I ask to have the question read back? I don't believe that that was responsive.
THE COURT: Okay. It was responsive to the question.

MR. BERNICK: Okay.
THE COURT: Overruled.
BY MR. BERNICK:
Q. Lawyers were also involved in writing these articles; correct?
A. I think there was a lawyer on --
I'd have to go back and look at the authorship. There was an LLB. If that's a lawyer, that would be a lawyer, yes.
Q. And there were lawyers involved who were

gathered and assembled these documents for Dr. Glantz; true?
A. Could have been. But you know, the reason that they had lawyers to interpret these articles was because a lot of the information was in there about lawyers and the lawyers' control of research internally and externally. This is all by lawyers from the companies as well as independent lawyers like at Shook, Hardy & Bacon. Their names are in there. You need lawyers, just like any doctors to interpret medical stuff, you need lawyers to interpret lawyer stuff. That's why I assume that the lawyers were present as far as authors on these papers.
Q. But you don't know.
A. I can look at them and the lawyers that were there. I -- I don't know how many there were on each one of those papers, but there were lawyers available in the papers, yes. They -- they participated.
Q. Well a lawyer also appears on the paper on "Nicotine and Addiction;" correct?
A. Correct. I think there was some question in that paper about some of the other aspects of the documents themselves.
Q. John Slade, the lead author of that article, has

he or has he not been an outspoken critic for years and years and years against tobacco?
MR. CIRESI: Objection, Your Honor, it's irrelevant. This whole line of questioning is irrelevant.
MR. BERNICK: Your Honor --
THE COURT: Sustained.
BY MR. BERNICK:
Q. Do you believe that the scientific process, Dr. Hurt, should include input from people who are lawyers and have motives as representatives of litigants? Do you believe that?
MR. CIRESI: Same objection.
THE COURT: Okay. It's argumentative, counsel.
MR. BERNICK: I'm trying to ask --
THE COURT: It's argumentative, counsel.
BY MR. BERNICK:
Q. Do you believe it's an appropriate part of scientific methodology to have lawyers who are

representing litigants in related litigation participate in scientific authorship?

MR. CIRESI: Objection, Your Honor. Counsel's testifying, making up facts.

THE COURT: Okay.

MR. BERNICK: I've not made up facts.

THE COURT: The objection is sustained. Counsel, move on, then, to an appropriate area of inquiry.

MR. BERNICK: Okay.

BY MR. BERNICK:

Q. Let's talk about the documents that went into the JAMA articles. Is it true, Dr. Hurt, that these documents were stolen by a person who later used them to make threats against Brown & Williamson?

MR. CIRESI: Your Honor, I'm going to object to the characterization and the irrelevancy of the comments of counsel as totally inappropriate.

THE COURT: Sustained.

BY MR. BERNICK:

Q. Is it --

Do you know where these documents came from, Dr. Hurt?

MR. CIRESI: Objection, irrelevant.

THE COURT: The objection is sustained.

Q. Can you represent to this jury that these documents came from an unbiased source?

MR. CIRESI: Objection, irrelevant to the line of questioning. I would ask that the court admonish counsel. This has been three or four times

now.

THE COURT: Okay.

MR. BERNICK: Your Honor, we're trying --

THE COURT: Counsel, the objection is sustained. Now if you want to move into a area that's appropriate, otherwise I'll consider your recross complete.

MR. BERNICK: Okay.

BY MR. BERNICK:

Q. When you went ahead and looked --

Let me take a look at some of the documents that were referred to in these articles. Let's take some of the documents that you spoke about in the course of your redirect examination. Was this the page that you looked at on "Smoking and Addiction?"

A. I think that is, yes.

Q. Okay. And I'm going to try to pull this apart a little bit. Let's deal with compensation. Just take the one that you talked about in your redirect examination.

A. I can't read that on the copy of it.

Q. Okay. I'll tell you what, I'll give you the nice original that Mr. Ciresi was good enough --

A. Here, I've got -- I've got some down here.

Q. Is that all right?

A. Which one is it?
Q. That's at page 220. You see it says there --
MR. CIRESI: May we have the exhibit number, Your Honor, so that the record is clear? I believe it's 18890 -- 18983. I'm sorry, counsel. It's actually 1898 -- actually 18983, that's right.
BY MR. BERNICK:
Q. Okay. This is a section that deals with low tar/low nicotine cigarettes and the phenomenon of smoker compensation. You've spoken about smoker compensation; correct?
A. Correct.
Q. And it says here, "This phenomenon, known as smoker compensation, was acknowledged internally in the tobacco industry by the early 1970s but was not appreciated in the scientific literature -- in the scientific community until the 1980s." Do you see that?
A. Yes, I see that.
Q. Now we have seen in this courtroom compensation studies that were published in the 19 -- from -- in the public -- in the scientific literature in 1970 by Dr. Ashton; correct?
A. Well I think we went over that article, but there were no nicotine levels in that article at all,

and unless you have nicotine levels, you don't know if they --
That was a puff test, and so if there's no nicotine levels in the article, then you can't prove compensation. It really has to do with how much nicotine gets into the bloodstream.
Q. You told this jury on cross-examination that the Ashton article was a compensation article; correct?
THE COURT: Counsel, your -- rephrase your question. You're becoming argumentative.
Q. Did you or did you not tell the jury in cross-examination --
THE COURT: Counsel, --
MR. BERNICK: I'm sorry.
THE COURT: -- I just -- I just directed you on that. Just ask your question, please.
BY MR. BERNICK:
Q. Has your testimony in this case been, Dr. Hurt, that the Ashton article in 1970 was about compensation? "Yes" or "no."
A. I think what I said was just what I said again. If you don't have nicotine levels in the study -- I think we talked about that as being puff volume, and I remember the discussion about that with you. Just because a person puffs on it differently does not

necessarily mean you get the nicotine levels into the

bloodstream. That article was absent of nicotine levels in the blood; they didn't measure it.
Q. Didn't Russell discuss compensation in 1973 and 1976 in published literature?
A. You know, I -- it's been a long couple of days here. I do not know the articles that you're speaking of. If you've got them, I'd be glad to look at them.
Q. Let me be very, very simple about it. When you saw this statement in the JAMA article that "compensation was not appreciated in the scientific community until the 1980s," did you accept that statement, or did you go back to see whether or not it was true?
A. I think I told you earlier that the '83 Benowitz article, as far as low tar/low nicotine cigarettes and compensation, is really the anchor, and in these articles they cite the Russell article from 1980, that's another anchor, but those are the two main -- that's what they're referring to here. There may have been other things mentioned like the Ashton article that you mentioned, but there were no nicotine levels in that article.
Q. My question is very simple, Dr. Hurt: Did you

go back and take a look at the literature to see whether the statement made in the JAMA article was true. "Yes" or "no?"
MR. CIRESI: Objection, repetitious, asked and answered.
THE COURT: It's been asked and answered, I believe, counsel.
Q. Do you know for a fact that the compensation references that appear in the company documents in the 1970s are --
A. I can't tell what you're pointing at. Maybe you can point at the little projector out there. You're pointing at a screen and it's out of my view.
Q. Here it is right here.
A. Okay.
Q. Do you know that the compensation references that appear in the internal documents in the 1970s are anything more than a repetition of the compensation articles that were then appearing in the scientific literature?
A. I think that, from my recollection of the internal documents that I've reviewed beyond these, there was talk about compensation that goes back to the early 1960s.
Q. Let's just focus on the ones that are in the

article.
A. I can't see over here. You'll have to point on that one over there.
Q. Right there, Dr. Hurt. Let's talk about the ones that are in the JAMA article that you testified to on the redirect examination. Do you know that

those documents refer to anything other than what was in the scientific literature at the time that they were written?
A. Which ones are you pointing to?
Q. The 1974 one that's highlighted.
A. I would have to go back and look.
Q. Did you do, with respect to any of the other internal company documents that are mentioned in JAMA, did you take any of those documents and go back and see if they were anything other than what was in the literature at the time? Regardless of whether JAMA did or not, did you do it?
A. I did not do it in a systematic way, no.
Q. Okay. If we get to, for example -- I'll give you another one. You testified about this reference here -- this is now on page 232 -- remember, you testified about the contract work that was done at Battelle in Geneva at the cutting edge of pharmacology? Remember that?

A. Yes.
Q. Did you go back and take a look and see what the internal documents said about how that data was evaluated by outside pharmacologists such as Dr. Armitage? Did you go back and do that?
A. Did I do that?
Q. Yes.
A. No.
Q. Okay. Did you go back and determine what was in the scientific literature on nicotine pharmacology in those precise areas covered by Battelle? Did you do that?
A. No. If you're pointing to the -- the Battelle work in Geneva, did I go back and look at other articles? No, I did not.
Q. Again, do you know that what was in the Battelle work in Geneva was any different from what had been published by Marrin or by Burns or by other researchers in pharmacology at the time? Do you know, "yes" or "no"?
A. The Battelle work, there was a lot of work, just as this sentence says, that was at the cutting edge of nicotine pharmacology. There probably are other documents from Battelle that I haven't seen. I've only seen a sample of the total number of documents.

Q. Okay. And with respect to the ones that you've seen, did you go back and take a look at the literature at the time, the publications by Marrin, the publications by Burns, to see if they were any different from what was in the literature at the time?
A. No, I did not.
Q. Okay. And from that point of view, when it comes to JAMA, JAMA doesn't tell you what was in the literature at the time in pharmacology; does it?
A. Not at -- not according to this one, no.

Q. Now when you came to this case, you told us that you got documents from the plaintiffs' lawyers; true?
A. I did, yes.
Q. Okay. They were your source of documents in this case?
A. Yes.
Q. Okay. When it came to the Battelle research as an example, did you ask the plaintiffs' lawyers in this case not only to give you documents that related to the documents that you've told us about, did you ask them to give you documents that related to the Battelle research so you could see the full picture of what had taken place with regard to the Battelle research?

A. I asked for documents to do with nicotine addiction, low tar/low nicotine cigarettes, with pH manipulation, and with -- with the things related to addiction. And there would be many times during the process if I found something I wanted to pull more documents about, I'd say, "Look, I don't know what this means, maybe there's another project over here. Are there documents about that?"

Did it deal specifically with the Battelle project? I don't know. I may have done some more of that, but I do not -- I couldn't tell you. There was thousands of pages of documents.

The recurring theme, though, was that your companies knew these things decades before the rest of us. That's what came through loud and clear. And these people would be shocked to learn the things that I've learned.

MR. BERNICK: Your Honor -- or actually I have -- it would be --
Q. Dr. Hurt, let me ask you this. Fair is fair. You say you asked for documents that related to the subject matter. Do you know that you have seen all of the documents that are internal documents that relate to the Battelle research? Do you know that you've seen them all?

A. No. I mean there -- there are thousands of pages of documents that I have reviewed. There are many, many more.
Q. Do you know that you've seen the internal documents that relate to compensation and low delivery cigarettes? Do you know that you've seen them all?
A. Seen all of them?
Q. Yes.
A. Probably not.
Q. Do you know that you've seen all of the documents that relate to what the companies thought internally about addiction? Do you know that you've seen them all?
A. No, but I've seen enough. They knew it and they didn't tell us.

Q. My question --
MR. BERNICK: I'm sorry, Your Honor, that's not responsive. My question is whether he knows whether he's seen them all.
THE COURT: Okay. Try to respond to the question.
THE WITNESS: Okay.
Q. Do you know that you've seen all of the documents that are internal documents on any of the

subjects that you've testified to?
A. No, but I have seen a large sample.
Q. Sure. In fact, your source -- your sole source of information in this case, your sole source of information in this case is what you've received from counsel who are representing the plaintiff in this case; true?
A. As far as internal documents are concerned?
Q. Yes.
A. I've reviewed these documents which were published in the scientific literature that have to do with your company. Those were not furnished to me by anyone except the Journal of the American Medical Association. And we have some that were duplicates, obviously.
Q. But you don't know who furnished those documents and how they selected them for the journal; do you?
A. They were Brown & Williamson documents.
Q. But you don't know how they were selected and who took them and why they took them; do you?
A. They were Brown & Williamson documents.
Q. Okay.
A. I mean you can't -- the people that make the quotes in here work for Brown & Williamson. You can't run away from them.

Q. No one is running away from anything.
Let me ask you this --
THE COURT: Counsel, it is not proper for you to testify. Please limit yourself to questions.
BY MR. BERNICK:
Q. Let me go back to this list of questions, Dr. Hurt. Those are a bunch of -- those are a series of claims and assessments, evaluations of my client and other clients based upon the particular set of documents that was furnished to the journal authors; correct?
A. These are their interpretation of what the documents show.
Q. And as a scientist, would you urge this jury to reach their own determination on these same issues, not just with the benefit of whatever documents JAMA may have had, but with the benefit of all of the documents that come before them in this trial and make up their own minds about those issues? Would you issue -- would you urge them to do that as a scientist, Dr. Hurt?

MR. CIRESI: Objection to the form of the question.
THE COURT: The objection is sustained.
MR. BERNICK: I have nothing further, Your

Honor.
THE COURT: Counsel, I trust you will restrict yourself purely to a few simple re-re-redirect questions.
THE COURT: I will indeed, Your Honor, having in mind Your Honor's instruction right now.
THE COURT: Thank you.
THE WITNESS: Thank you, Your Honor.

BY MR. CIRESI:
Q. Did Mr. Bernick show you any documents from these defendants, any of them that refute the documents that you looked at?
MR. BERNICK: Objection. It's conclusory and it's argumentative and it's improper re-recross.
THE COURT: I think that's exactly the question you just asked him 30 seconds ago.
MR. BERNICK: I don't think that it is, Your Honor, but I understand Your Honor's ruled.
THE COURT: Yes, you should understand that, counsel.
BY MR. CIRESI:
Q. Did he?
A. No.
Q. Now if you can go to the JAMA article --
Well before you go there, do you have in volume one of the plaintiffs' documents Exhibit 11938?
A. Do you know which tab it's under?
Q. That would be in the plaintiffs' exhibits.
MR. CIRESI: May I approach, Your Honor?
THE COURT: Yes.
(Document handed to the witness.)
THE WITNESS: Thank you.
Q. Now that's a Battelle document?

A. Yes. That's a B.A.T document.
Q. And can you go to --
Let me go back to the title. It's a proposal for further research contract with Battelle; correct?
A. Correct. 1962.
Q. And can you go to page nine of that article.
A. Okay.
Q. And right at the top does it say, "As a result of these various researches we now possess a knowledge of the effects of nicotine far more extensive than exists in published scientific literature. It is indeed so extensive and represents so much new thought that it is not easy to condense the materials of these several reports and working papers without the risk of over-simplification?" Is that what it reports?
A. That's what it says.
Q. Is this B.A.T's words, not yours?
A. That's correct. 1962.
Q. And sir, can you go to the JAMA article one more time and to the editorial.
A. Okay.
Q. Do you recall counsel asking you a series of questions about what the American Medical Association was doing, what JAMA was doing, whether lawyers were

involved, and you kept saying but there were recommendations?
A. Correct.
Q. You remember that?
A. I do.
Q. And do you remember that he mentioned something about banning cigarettes or words to that effect?
A. Something like that.
Q. Can you go to the page 257 of Exhibit 18989, and do you recall counsel was a few paragraphs above that -- we were talking about we hope this will make our members get active in the campaign against tobacco?
A. Right.
Q. Something to that effect. You remember that?
A. I remember that, yes.
Q. Now down below that, is it there where the AMA recommends and makes its recommendations?
A. That -- these are recommendations, yes.
Q. And I think you said there were 10 or 12; is that right?
A. I think I said there were a lot, but I can't remember how many.
Q. And it goes over to the next page and I believe there are 14; is that correct?

A. Fourteen, yes.
Q. And in any one of those 14 does the AMA say ban

cigarettes?
A. I'd have to read it, but I don't think so.
Q. And --
A. In fact, "Purchase of cigarettes should be strictly limited to adults, with severe penalties for those who transgress," so it talks about restricting usage to non-children.
Q. And what number is that? Number seven?
A. Number seven.
Q. "Purchase of tobacco should be strictly limited to adults, with severe penalties for those who transgress."
A. Correct.
Q. "Under-age use of tobacco should carry consequences for the user. All tobacco advertising should be eliminated, and a vigorous counter-advertising campaign should be instituted."
So there wasn't anything in this article that would suggest that the AMA or the Journal of the American Medical Association wanted to ban cigarettes; was there?
A. Not to my knowledge.
Q. And counsel talked about lawyers. In fact

there's not a lawyer on the Advisory Board; is there, sir?
A. This is the board of trustees for the American Medical Association. This is all of them. They signed it one and all.
Q. And they're all M.D.'s; correct?
A. Correct.
MR. CIRESI: Thank you, doctor. I have no further questions.
THE COURT: You may step down.
Ladies and gentlemen, we'll be recessing at this time and reconvening tomorrow morning at 9:30.
As you'll recall, several times in the past I have mentioned that you should not discuss this case with anybody, particularly your spouses when you go home. Do not read the newspaper or watch television or listen to the radio so that you should not obtain information that you did not get in this courtroom. Keep that admonition in mind, and I'll go through that once in a while just to remind you that you will be required to avoid that type of matter.
We will reconvene at 9:30 tomorrow morning.
THE CLERK: Court stands in recess to reconvene tomorrow morning at 9:30.
(Court recesses.)